

Title 40                    Protection of Environment  
 Part 63                   National Emission Standards for Hazardous Air  
                              Pollutants for Source Categories  
 Subpart EEE            National Emission Standards for Hazardous Air  
                              Pollutants from Hazardous Waste Combustors  
 Source:                   64 FR 53038, Sept. 30, 1999, unless otherwise noted.

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## General

### § 63.1200 Who is subject to these regulations?

The provisions of this subpart apply to all HWCs: hazardous waste incinerators, hazardous waste cement kilns, hazardous waste LWAKs, hazardous waste SFBs, hazardous waste LFBs, and hazardous waste HCl production furnaces. HWCs are also subject to applicable requirements under parts 260 through 270 of this chapter.

#### (a) What if I am an area source?

(1) Both area sources and major sources are subject to this subpart.

(2) Both area sources and major sources subject to this subpart, but not previously subject to title V, are immediately subject to the requirement to apply for and obtain a title V permit in all States, and in areas covered by part 71 of this chapter.

(b) These regulations in this subpart do not apply to sources that meet the criteria in Table 1 of this Section, as follows:

Table 1 to § 63.1200 HWCs Exempt From Subpart EEE

If	And if	Then
(1) You are a previously affected source.	(i) You ceased feeding hazardous waste for a period of time greater than the hazardous waste residence time (i.e., hazardous waste no longer resides in the combustion chamber);	You are no longer subject to this subpart (Subpart EEE).
	(ii) You have initiated the closure requirements of subpart G, parts 264 or 265 of this chapter;	
	(iii) You begin complying with the requirements of all other applicable standards of this part (Part 63); and	
	(iv) You notify the Administrator in writing that you are no longer an affected source under this subpart (Subpart EEE).	
(2) You are a	You operate for no longer	You are not

research, development, and demonstration source.	than 1 year after first burning hazardous waste (Note that the Administrator can extend this 1-year restriction on a case-by-case basis upon your written request documenting when you first burned hazardous waste and the justification for needing additional time to perform research, development, or demonstration operations).	subject to this subpart (Subpart EEE). This exemption applies even if there is a HWC at the plant site that is regulated under this subpart. You still, however, remain subject to § 270.65 of this chapter.
(3) The only hazardous wastes you burn are exempt from regulation under § 266.100(c) of this chapter.	.....	You are not subject to the requirements of this subpart (Subpart EEE).
(4) You meet the definition of a small quantity burner under § 266.108 of this chapter.	.....	You are not subject to the requirements of this subpart (Subpart EEE).

(c) Table 1 of this section specifies the provisions of subpart A (General Provisions, §§ 63.1-63.15) that apply and those that do not apply to sources affected by this subpart.

[64 FR 53038, Sept. 30, 1999, as amended at 65 FR 42297, July 10, 2000; 67 FR 6986, Feb. 14, 2002; 70 FR 59540, Oct. 12, 2005]

#### **§ 63.1201 Definitions and acronyms used in this subpart.**

(a) The terms used in this subpart are defined in the Act, in subpart A of this part, or in this section as follows:

Air pollution control system means the equipment used to reduce the release of PM and other pollutants to the atmosphere.

Automatic waste feed cutoff (AWFCO) system means a system comprised of cutoff valves, actuator, sensor, data manager, and other necessary components and electrical circuitry designed, operated and maintained to stop the flow of hazardous waste to the combustion unit automatically and immediately (except as provided by § 63.1206(c)(3)(viii)) when any operating requirement is exceeded.

Btu means British Thermal Units.

By-pass duct means a device which diverts a minimum of 10 percent of a cement kiln's off gas, or a device which the Administrator determines



on a case-by-case basis diverts a sample of kiln gas that contains levels of CO or hydrocarbons representative of the levels in the kiln.

Combustion chamber means the area in which controlled flame combustion of hazardous waste occurs.

Continuous monitor means a device which continuously samples the regulated parameter specified in § 63.1209 without interruption, evaluates the detector response at least once every 15 seconds, and computes and records the average value at least every 60 seconds, except during allowable periods of calibration and except as defined otherwise by the CEMS PSs in appendix B, part 60 of this chapter.

D/F and dioxins and furans mean tetra-, penta-, hexa-, hepta-, and octa-chlorinated dibenzo dioxins and furans.

Existing source means any affected source that is not a new source.

Feed rate operating limits means limits on the feed rate of materials (e.g., metals, chlorine) to the combustor that are established based on comprehensive performance testing. The limits are established and monitored by knowing the concentration of the limited material (e.g., chlorine) in each feedstream and the flow rate of each feedstream.

Feedstream means any material fed into a HWC, including, but not limited to, any pumpable or nonpumpable solid, liquid, or gas.

Flow rate means the rate at which a feedstream is fed into a HWC.

Hazardous waste is defined in § 261.3 of this chapter.

Hazardous waste burning cement kiln means a rotary kiln and any associated preheater or precalciner devices that produce clinker by heating limestone and other materials for subsequent production of cement for use in commerce, and that burns hazardous waste at any time.

HWC means a hazardous waste incinerator, hazardous waste burning cement kiln, hazardous waste burning LWAK, hazardous waste LFB, hazardous waste SFB, or hazardous waste HCl production furnace.

Hazardous waste HCl production furnace and Hazardous Waste HCl production furnace mean a halogen acid furnace defined under § 260.10 of this chapter that produces aqueous HCl product and that burns hazardous waste at any time.

Hazardous waste incinerator means a device defined as an incinerator in § 260.10 of this chapter and that burns hazardous waste at any time. For purposes of this subpart, the hazardous waste incinerator includes all associated firing systems and air pollution control devices, as well as the combustion chamber equipment.

Hazardous waste LWAK means a rotary kiln that produces clinker by heating materials such as slate, shale and clay for subsequent production of lightweight aggregate used in commerce, and that burns hazardous waste at any time.

Hazardous waste LFB means a boiler defined under § 260.10 of this chapter that does not burn solid fuels and that burns hazardous waste at any time. LFB includes boilers that only burn gaseous fuel.

Hazardous waste residence time means the time elapsed from cutoff of the flow of hazardous waste into the combustor (including, for example, the time required for liquids to flow from the cutoff valve into the combustor) until solid, liquid, and gaseous materials from the hazardous waste (excluding residues that may adhere to combustion chamber surfaces and excluding waste-derived recycled materials such as cement kiln dust and internally recycled metals) exit the combustion chamber. For combustors with multiple firing systems whereby the residence time may vary for the firing systems, the hazardous waste residence time for purposes of complying with this subpart means the longest residence time for any firing system in use at the time of the waste cutoff.

Hazardous waste SFB means a boiler defined under § 260.10 of this chapter that burns a solid fuel and that burns hazardous waste at any time.

Initial CPT means the CPT that is used as the basis for initially demonstrating compliance with the standards.

In-line kiln raw mill means a hazardous waste burning cement kiln design whereby kiln gas is ducted through the raw material mill for portions of time to facilitate drying and heating of the raw material.

Instantaneous monitoring for combustion system leak control means detecting and recording pressure, without use of an averaging period, at a frequency adequate to detect combustion system leak events from hazardous waste combustion.

Monovent means an exhaust configuration of a building or emission control device (e.g. positive pressure fabric filter) that extends the length of the structure and has a width very small in relation to its length (i.e., length to width ratio is typically greater than 5:1). The exhaust may be an open vent with or without a roof, louvered vents, or a combination of such features.

MTEC means maximum theoretical emissions concentration of metals or HCl/Cl<sub>2</sub>, expressed as µg/dscm, and is calculated by dividing the feed rate by the gas flow rate.

New source means any affected source the construction or reconstruction of which is commenced after the dates specified under §§ 63.1206(a)(1)(i)(B), (a)(1)(ii)(B), and (a)(2)(ii).

One-minute average means the average of detector responses calculated at least every 60 seconds from responses obtained at least every 15 seconds.

Operating record means a documentation retained at the facility for ready inspection by authorized officials of all information required by the standards to document and maintain compliance with the applicable regulations, including data and information, reports, notifications, and communications with regulatory officials.

Operating requirements means operating terms or conditions, limits, or OPLs developed under this subpart that ensure compliance with the emission standards.

Preheater tower combustion gas monitoring location means a location within the preheater tower of a dry process cement kiln downstream (in terms of gas flow) of all hazardous waste firing locations and where a representative sample of combustion gas to measure combustion efficiency can be monitored.

Raw material feed means the prepared and mixed materials, which include but are not limited to materials such as limestone, clay, shale, sand, iron ore, mill scale, cement kiln dust and flyash, that are fed to a cement or LWAK. Raw material feed does not include the fuels used in the kiln to produce heat to form the clinker product.

Research, development, and demonstration source means a source engaged in laboratory, pilot plant, or prototype demonstration operations:

(1) Whose primary purpose is to conduct research, development, or short-term demonstration of an innovative and experimental hazardous waste treatment technology or process; and

(2) Where the operations are under the close supervision of technically-trained personnel.

Rolling average means the average of all 1-minute averages over the averaging period.

Run means the net period of time during which an air emission sample is collected under a given set of operating conditions. Three or more runs constitutes a test. Unless otherwise specified, a run may be either intermittent or continuous.

Run average means the average of the 1-minute average parameter values for a run.

System removal efficiency means  $[1 - \text{Emission Rate (mass/time)} / \text{Feed rate (mass/time)}] * 100$ .

TEQ means the international method of expressing toxicity equivalents for dioxins and furans as defined in U.S. EPA, Interim Procedures for Estimating Risks Associated with Exposures to Mixtures of Chlorinated

Dibenzo-p-dioxins and -dibenzofurans (CDDs and CDFs) and 1989 Update, March 1989.

You means the owner or operator of a HWC.

(b) The acronyms used in this subpart refer to the following:

AWFCO means automatic waste feed cutoff.  
 CAS means chemical abstract services registry.  
 CEMS means continuous emissions monitoring system.  
 CMS means continuous monitoring system.  
 DRE means destruction and removal efficiency.  
 MACT means maximum achievable control technology.  
 MTEC means maximum theoretical emissions concentration.  
 NIC means notification of intent to comply.

[64 FR 53038, Sept. 30, 1999, as amended at 65 FR 42297, July 10, 2000; 65 FR 67271, Nov. 9, 2000; 66 FR 35103, July 3, 2001; 67 FR 6986, Feb. 14, 2002; 67 FR 77691, Dec. 19, 2002; 70 FR 59540, Oct. 12, 2005]

#### Additional Acronyms

As means Arsenic  
 ASME means American Society of Mechanical Engineers  
 Be means Beryllium  
 BTU/lb means BTU per pound  
 CDDs means chlorodibenzo-p-dioxins  
 CDFs means chlorodibenzofurans  
 Cd means Cadmium  
 Cl<sub>2</sub> means chlorine gas  
 Cl<sup>-</sup> means Chloride  
 CO means Carbon monoxide  
 CPT means comprehensive performance test  
 Cr means Chromium  
 D/F means CDDs and CDFs  
 DOC means documentation of compliance  
 HAP means hazardous air pollutant  
 HCl means hydrochloric acid or hydrogen chloride  
 Hg means Mercury  
 HWC means hazardous waste combustor  
 LFB means liquid fuel boiler  
 Low volatile metal means LVMs (As, Be, Cr)  
 LWAK means lightweight aggregate kiln  
 mmBTU means million BTU  
 Mn means Manganese  
 MTEC means maximum theoretical emission concentration  
 Ni means Nickel  
 NOC means notification of compliance  
 OPL means operating parameter limit  
 Pb means Lead  
 PM means PM  
 ppmV means parts per million by Volume

ppmW means parts per million by weight  
 PS means performance specifications  
 POHC means principle organic hazardous constituent  
 Sb means Antimony  
 Se means Selenium  
 7% O<sub>2</sub> means 7 percent oxygen  
 SFB means solid fuel boiler  
 SVM means SVMs (Cd, Pb)  
 SRE means system removal efficiency  
 SSMP means startup, shut down, and malfunction plan  
 SVM means semi-volatile metals

**§ 63.1202 [Reserved]**

**Interim Emissions Standards and Operating Limits For Incinerators, Cement Kilns, and LWAKs**

**§ 63.1203 What are the standards for hazardous waste incinerators that are effective until compliance with the standards under § 63.1219?**

(a) Emission limits for existing sources. You must not discharge or cause combustion gases to be emitted into the atmosphere that contain:

(1) For dioxins and furans:

(i) Emissions in excess of 0.20 ng TEQ/dscm corrected to 7% O<sub>2</sub>;  
 or

(ii) Emissions in excess of 0.40 ng TEQ/dscm corrected to 7% O<sub>2</sub> provided that the combustion gas temperature at the inlet to the initial PM control device is 400°F or lower based on the average of the test run average temperatures. (For purposes of compliance, operation of a wet particulate control device is presumed to meet the 400°F or lower requirement);

(2) Hg in excess of 130 µg/dscm corrected to 7% O<sub>2</sub>;

(3) Pb and Cd in excess of 240 µg/dscm, combined emissions, corrected to 7% O<sub>2</sub>;

(4) As, Be, and Cr in excess of 97 µg/dscm, combined emissions, corrected to 7% O<sub>2</sub>;

(5) For CO and hydrocarbons, either:

(i) CO in excess of 100 ppmV, over an hourly rolling average (monitored continuously with a CEMS), dry basis and corrected to 7% O<sub>2</sub>. If you elect to comply with this CO standard rather than the hydrocarbon standard under paragraph (a)(5)(ii) of this section, you must also document that, during the DRE test runs or their equivalent as provided by § 63.1206(b)(7), hydrocarbons do not exceed 10 ppmV

during those runs, over an hourly rolling average (monitored continuously with a CEMS), dry basis, corrected to 7% O<sub>2</sub>, and reported as propane; or

(ii) Hydrocarbons in excess of 10 ppmV, over an hourly rolling average (monitored continuously with a CEMS), dry basis, corrected to 7% O<sub>2</sub>, and reported as propane;

(6) HCl/Cl<sub>2</sub> in excess of 77 ppmV, combined emissions, expressed as HCl equivalents, dry basis and corrected to 7% O<sub>2</sub>; and

(7) PM in excess of 34 mg/dscm corrected to 7% O<sub>2</sub>.

(b) Emission limits for new sources. You must not discharge or cause combustion gases to be emitted into the atmosphere that contain:

(1) Dioxins and furans in excess of 0.20 ng TEQ/dscm, corrected to 7% O<sub>2</sub>;

(2) Hg in excess of 45 µg/dscm corrected to 7% O<sub>2</sub>;

(3) Pb and Cd in excess of 120 µg/dscm, combined emissions, corrected to 7% O<sub>2</sub>;

(4) As, Be, and Cr in excess of 97 µg/dscm, combined emissions, corrected to 7% O<sub>2</sub>;

(5) For CO and hydrocarbons, either:

(i) CO in excess of 100 ppmV, over an hourly rolling average (monitored continuously with a CEMS), dry basis and corrected to 7% O<sub>2</sub>. If you elect to comply with this CO standard rather than the hydrocarbon standard under paragraph (b)(5)(ii) of this section, you must also document that, during the DRE test runs or their equivalent as provided by § 63.1206(b)(7), hydrocarbons do not exceed 10 ppmV during those runs, over an hourly rolling average (monitored continuously with a CEMS), dry basis, corrected to 7% O<sub>2</sub>, and reported as propane; or

(ii) Hydrocarbons in excess of 10 ppmV, over an hourly rolling average (monitored continuously with a CEMS), dry basis, corrected to 7% O<sub>2</sub>, and reported as propane;

(6) HCl/Cl<sub>2</sub> in excess of 21 ppmV, combined emissions, expressed as HCl equivalents, dry basis and corrected to 7% O<sub>2</sub>; and

(7) PM in excess of 34 mg/dscm corrected to 7% O<sub>2</sub>.

(c) DRE standard.

(1) 99.99% DRE. Except as provided in paragraph (c)(2) of this section, you must achieve a DRE of 99.99% for each POHC designated

under paragraph (c)(3) of this section. You must calculate DRE for each POHC from the following equation:

$$\text{DRE} = [1 - (W_{\text{out}} / W_{\text{in}})] \times 100\%$$

Where:

$W_{\text{in}}$  = mass feed rate of one POHC in a waste feedstream; and  
 $W_{\text{out}}$  = mass emission rate of the same POHC present in exhaust emissions prior to release to the atmosphere.

(2) 99.9999% DRE. If you burn the dioxin-listed hazardous wastes F020, F021, F022, F023, F026, or F027 (see § 261.31 of this chapter), you must achieve a DRE of 99.9999% for each POHC that you designate under paragraph (c)(3) of this section. You must demonstrate this DRE performance on POHCs that are more difficult to incinerate than tetra-, penta-, and hexaCDDs and dibenzofurans. You must use the equation in paragraph (c)(1) of this section to calculate DRE for each POHC. In addition, you must notify the Administrator of your intent to incinerate hazardous wastes F020, F021, F022, F023, F026, or F027.

(3) POHCs.

(i) You must treat the POHCs in the waste feed that you specify under paragraph (c)(3)(ii) of this section to the extent required by paragraphs (c)(1) and (c)(2) of this section.

(ii) You must specify one or more POHCs that are representative of the most difficult to destroy organic compounds in your hazardous waste feedstream. You must base this specification on the degree of difficulty of incineration of the organic constituents in the hazardous waste and on their concentration or mass in the hazardous waste feed, considering the results of hazardous waste analyses or other data and information.

(d) Significant figures. The emission limits provided by paragraphs (a) and (b) of this section are presented with two significant figures. Although you must perform intermediate calculations using at least three significant figures, you may round the resultant emission levels to two significant figures to document compliance.

[67 FR 6809, Feb. 13, 2002, as amended at 70 FR 59541, Oct. 12, 2005]

**§ 63.1204 What are the standards for hazardous waste cement kilns that are effective until compliance with the standards under § 63.1220?**

(a) Emission limits for existing sources. You must not discharge or cause combustion gases to be emitted into the atmosphere that contain:

(1) For dioxins and furans:

(i) Emissions in excess of 0.20 ng TEQ/dscm corrected to 7% O<sub>2</sub>;  
or

(ii) Emissions in excess of 0.40 ng TEQ/dscm corrected to 7% O<sub>2</sub> provided that the combustion gas temperature at the inlet to the initial dry PM control device is 400°F or lower based on the average of the test run average temperatures;

(2) Hg in excess of 120 µg/dscm corrected to 7% O<sub>2</sub>;

(3) Pb and Cd in excess of 330 µg/dscm, combined emissions, corrected to 7% O<sub>2</sub>;

(4) As, Be, and Cr in excess of 56 µg/dscm, combined emissions, corrected to 7% O<sub>2</sub>;

(5) CO and hydrocarbons.

(i) For kilns equipped with a by-pass duct or mid-kiln gas sampling system, either:

(A) CO in the by-pass duct or mid-kiln gas sampling system in excess of 100 ppmV, over an hourly rolling average (monitored continuously with a CEMS), dry basis and corrected to 7% O<sub>2</sub>. If you elect to comply with this CO standard rather than the hydrocarbon standard under paragraph (a)(5)(i)(B) of this section, you must also document that, during the DRE test runs or their equivalent as provided by § 63.1206(b)(7), hydrocarbons in the by-pass duct or mid-kiln gas sampling system do not exceed 10 ppmV during those runs, over an hourly rolling average (monitored continuously with a CEMS), dry basis, corrected to 7% O<sub>2</sub>, and reported as propane; or

(B) Hydrocarbons in the by-pass duct or midkiln gas sampling system in excess of 10 ppmV, over an hourly rolling average (monitored continuously with a CEMS), dry basis, corrected to 7% O<sub>2</sub>, and reported as propane;

(ii) For kilns not equipped with a by-pass duct or mid-kiln gas sampling system, either:

(A) Hydrocarbons in the main stack in excess of 20 ppmV, over an hourly rolling average (monitored continuously with a CEMS), dry basis, corrected to 7% O<sub>2</sub>, and reported as propane; or

(B) CO in the main stack in excess of 100 ppmV, over an hourly rolling average (monitored continuously with a CEMS), dry basis and corrected to 7% O<sub>2</sub>. If you elect to comply with this CO standard rather than the hydrocarbon standard under paragraph (a)(5)(ii)(A) of this section, you also must document that, during the DRE test runs or their equivalent as provided by § 63.1206(b)(7), hydrocarbons in the main stack do not exceed 20 ppmV during those runs, over an hourly



rolling average (monitored continuously with a CEMS), dry basis, corrected to 7% O<sub>2</sub>, and reported as propane.

(6) HCl/Cl<sub>2</sub> in excess of 130 ppmV, combined emissions, expressed as HCl equivalents, dry basis, corrected to 7% O<sub>2</sub>; and

(7) PM in excess of 0.15 kg/Mg dry feed and opacity greater than 20 percent.

(i) You must use suitable methods to determine the kiln raw material feed rate.

(ii) Except as provided in paragraph (a)(7)(iii) of this section, you must compute the PM emission rate, E, from the following equation:

$$E = (C_s \times Q_{sd}) / P$$

Where:

E = emission rate of PM, kg/Mg of kiln raw material feed;  
 C<sub>s</sub> = concentration of PM, kg/dscm;  
 Q<sub>sd</sub> = volumetric flow rate of effluent gas, dscm/hr; and  
 P = total kiln raw material feed (dry basis), Mg/hr.

(iii) If you operate a preheater or preheater/precalciner kiln with dual stacks, you must test simultaneously and compute the combined PM emission rate, E<sub>c</sub>, from the following equation:

$$E_c = (C_{sk} \times Q_{sdk} + C_{sb} \times Q_{sdb}) / P$$

Where:

E<sub>c</sub> = the combined emission rate of PM from the kiln and bypass stack, kg/Mg of kiln raw material feed;  
 C<sub>sk</sub> = concentration of PM in the kiln effluent, kg/dscm;  
 Q<sub>sdk</sub> = volumetric flow rate of kiln effluent gas, dscm/hr;  
 C<sub>sb</sub> = concentration of PM in the bypass stack effluent, kg/dscm;  
 Q<sub>sdb</sub> = volumetric flow rate of bypass stack effluent gas, dscm/hr; and  
 P = total kiln raw material feed (dry basis), Mg/hr.

(b) Emission limits for new sources. You must not discharge or cause combustion gases to be emitted into the atmosphere that contain:

(1) For dioxins and furans:

(i) Emissions in excess of 0.20 ng TEQ/dscm corrected to 7% O<sub>2</sub>;  
 or

(ii) Emissions in excess of 0.40 ng TEQ/dscm corrected to 7% O<sub>2</sub> provided that the combustion gas temperature at the inlet to the initial dry PM control device is 400°F or lower based on the average of the test run average temperatures;

(2) Hg in excess of 120 µg/dscm corrected to 7% O<sub>2</sub>;

(3) Pb and Cd in excess of 180 µg/dscm, combined emissions, corrected to 7% O<sub>2</sub>;

(4) As, Be, and Cr in excess of 54 µg/dscm, combined emissions, corrected to 7% O<sub>2</sub>;

(5) CO and hydrocarbons.

(i) For kilns equipped with a by-pass duct or mid-kiln gas sampling system, CO and hydrocarbons emissions are limited in both the bypass duct or midkiln gas sampling system and the main stack as follows:

(A) Emissions in the by-pass or mid-kiln gas sampling system are limited to either:

(1) CO in excess of 100 ppmV, over an hourly rolling average (monitored continuously with a CEMS), dry basis and corrected to 7% O<sub>2</sub>. If you elect to comply with this CO standard rather than the hydrocarbon standard under paragraph (b) (5) (i) (A) (2) of this section, you also must document that, during the DRE test runs or their equivalent as provided by § 63.1206(b) (7), hydrocarbons do not exceed 10 ppmV during those runs, over an hourly rolling average (monitored continuously with a CEMS), dry basis, corrected to 7% O<sub>2</sub>, and reported as propane; or

(2) Hydrocarbons in the by-pass duct or mid-kiln gas sampling system in excess of 10 ppmV, over an hourly rolling average (monitored continuously with a CEMS), dry basis, corrected to 7% O<sub>2</sub>, and reported as propane; and

(B) Hydrocarbons in the main stack are limited, if construction of the kiln commenced after April 19, 1996 at a plant site where a cement kiln (whether burning hazardous waste or not) did not previously exist, to 50 ppmV, over a 30-day block average (monitored continuously with a CMS), dry basis, corrected to 7% O<sub>2</sub>, and reported as propane.

(ii) For kilns not equipped with a by-pass duct or mid-kiln gas sampling system, hydrocarbons and CO are limited in the main stack to either:

(A) Hydrocarbons not exceeding 20 ppmV, over an hourly rolling average (monitored continuously with a CEMS), dry basis, corrected to 7% O<sub>2</sub>, and reported as propane; or

(B)

(1) CO not exceeding 100 ppmV, over an hourly rolling average (monitored continuously with a CEMS), dry basis, corrected to 7% O<sub>2</sub>; and

(2) Hydrocarbons not exceeding 20 ppmV, over an hourly rolling average (monitored continuously with a CMS), dry basis, corrected to 7% O<sub>2</sub>, and reported as propane at any time during the DRE test runs or their equivalent as provided by § 63.1206(b)(7); and

(3) If construction of the kiln commenced after April 19, 1996 at a plant site where a cement kiln (whether burning hazardous waste or not) did not previously exist, hydrocarbons are limited to 50 ppmV, over a 30-day block average (monitored continuously with a CMS), dry basis, corrected to 7% O<sub>2</sub>, and reported as propane.

(6) HCl/Cl<sub>2</sub> in excess of 86 ppmV, combined emissions, expressed as HCl equivalents, dry basis and corrected to 7% O<sub>2</sub>; and

(7) PM in excess of 0.15 kg/Mg dry feed and opacity greater than 20 percent.

(i) You must use suitable methods to determine the kiln raw material feed rate.

(ii) Except as provided in paragraph (a)(7)(iii) of this section, you must compute the PM emission rate, E, from the equation specified in paragraph (a)(7)(ii) of this section.

(iii) If you operate a preheater or preheater/precalciner kiln with dual stacks, you must test simultaneously and compute the combined PM emission rate, E<sub>c</sub>, from the equation specified in paragraph (a)(7)(iii) of this section.

(c) DRE standard.

(1) 99.99% DRE. Except as provided in paragraph (c)(2) of this section, you must achieve a DRE of 99.99% for each POHC designated under paragraph (c)(3) of this section. You must calculate DRE for each POHC from the following equation:

$$\text{DRE} = [1 - (W_{\text{out}} / W_{\text{in}})] \times 100\%$$

Where:

W<sub>in</sub> = mass feed rate of one POHC in a waste feedstream; and  
 W<sub>out</sub> = mass emission rate of the same POHC present in exhaust emissions prior to release to the atmosphere.

(2) 99.9999% DRE. If you burn the dioxin-listed hazardous wastes F020, F021, F022, F023, F026, or F027 (see § 261.31 of this chapter), you must achieve a DRE of 99.9999% for each POHC that you designate under paragraph (c)(3) of this section. You must demonstrate this DRE performance on POHCs that are more difficult to incinerate than tetra-, penta-, and hexaCDDs and dibenzofurans. You must use the equation in paragraph (c)(1) of this section to calculate DRE for each POHC. In addition, you must notify the Administrator of your intent to incinerate hazardous wastes F020, F021, F022, F023, F026, or F027.

(3) POHCs.

(i) You must treat the POHCs in the waste feed that you specify under paragraph (c)(3)(ii) of this section to the extent required by paragraphs (c)(1) and (c)(2) of this section.

(ii) You must specify one or more POHCs that are representative of the most difficult to destroy organic compounds in your hazardous waste feedstream. You must base this specification on the degree of difficulty of incineration of the organic constituents in the hazardous waste and on their concentration or mass in the hazardous waste feed, considering the results of hazardous waste analyses or other data and information.

(d) Cement kilns with in-line kiln raw mills.

(1) General.

(i) You must conduct performance testing when the raw mill is on-line and when the mill is off-line to demonstrate compliance with the emission standards, and you must establish separate OPLs under § 63.1209 for each mode of operation, except as provided by paragraph (d)(1)(iv) of this section.

(ii) You must document in the operating record each time you change from one mode of operation to the alternate mode and begin complying with the OPLs for that alternate mode of operation.

(iii) You must calculate rolling averages for OPLs as provided by § 63.1209(q)(2).

(iv) If your in-line kiln raw mill has dual stacks, you may assume that the D/F emission levels in the by-pass stack and the OPLs determined during performance testing of the by-pass stack when the raw mill is off-line are the same as when the mill is on-line.

(2) Emissions averaging. You may comply with the Hg, SVM, LVM, and HCl/Cl<sub>2</sub> emission standards on a time-weighted average basis under the following procedures:

(i) Averaging methodology. You must calculate the time-weighted average emission concentration with the following equation:

$$C_{\text{total}} = \{C_{\text{mill-off}} \times (T_{\text{mill-off}} / (T_{\text{mill-off}} + T_{\text{mill-on}}))\} + \{C_{\text{mill-on}} \times (T_{\text{mill-on}} / (T_{\text{mill-off}} + T_{\text{mill-on}}))\}$$

Where:

- $C_{\text{total}}$  = time-weighted average concentration of a regulated constituent considering both raw mill on time and off time;
- $C_{\text{mill-off}}$  = average performance test concentration of regulated constituent with the raw mill off-line;
- $C_{\text{mill-on}}$  = average performance test concentration of regulated constituent with the raw mill on-line;
- $T_{\text{mill-off}}$  = time when kiln gases are not routed through the raw mill; and
- $T_{\text{mill-on}}$  = time when kiln gases are routed through the raw mill.

(ii) Compliance.

(A) If you use this emission averaging provision, you must document in the operating record compliance with the emission standards on an annual basis by using the equation provided by paragraph (d)(2) of this section.

(B) Compliance is based on 1-year block averages beginning on the day you submit the initial NOC.

(iii) Notification.

(A) If you elect to document compliance with one or more emission standards using this emission averaging provision, you must notify the Administrator in the initial CPT plan submitted under § 63.1207(e).

(B) You must include historical raw mill operation data in the performance test plan to estimate future raw mill down-time and document in the performance test plan that estimated emissions and estimated raw mill down-time will not result in an exceedance of an emission standard on an annual basis.

(C) You must document in the NOC submitted under § 63.1207(j) that an emission standard will not be exceeded based on the documented emissions from the performance test and predicted raw mill down-time.

(e) Preheater or preheater/precalciner kilns with dual stacks.

(1) General. You must conduct performance testing on each stack to demonstrate compliance with the emission standards, and you must establish OPLs under § 63.1209 for each stack, except as provided by paragraph (d)(1)(iv) of this section for D/F emissions testing and OPLs for the by-pass stack of in-line raw mills.

(2) Emissions averaging. You may comply with the Hg, SVM, LVM, and HCl/Cl<sub>2</sub> emission standards specified in this section on a gas flow rate-weighted average basis under the following procedures:

(i) Averaging methodology. You must calculate the gas flow rate-weighted average emission concentration using the following equation:

$$C_{\text{total}} = \{C_{\text{main}} \times (Q_{\text{main}} / (Q_{\text{main}} + Q_{\text{bypass}}))\} + \{C_{\text{bypass}} \times (Q_{\text{bypass}} / (Q_{\text{main}} + Q_{\text{bypass}}))\}$$

Where:

$C_{\text{total}}$  = gas flow rate-weighted average concentration of the regulated constituent;

$C_{\text{main}}$  = average performance test concentration demonstrated in the main stack;

$C_{\text{bypass}}$  = average performance test concentration demonstrated in the bypass stack;

$Q_{\text{main}}$  = volumetric flow rate of main stack effluent gas; and

$Q_{\text{bypass}}$  = volumetric flow rate of bypass effluent gas.

(ii) Compliance.

(A) You must demonstrate compliance with the emission standard(s) using the emission concentrations determined from the performance tests and the equation provided by paragraph (e)(1) of this section; and

(B) You must develop OPLs for bypass stack and main stack flow rates that ensure the emission concentrations calculated with the equation in paragraph (e)(1) of this section do not exceed the emission standards on a 12-hour rolling average basis. You must include these flow rate limits in the NOC.

(iii) Notification. If you elect to document compliance under this emissions averaging provision, you must:

(A) Notify the Administrator in the initial CPT plan submitted under § 63.1207(e). The performance test plan must include, at a minimum, information describing the flow rate limits established under paragraph (e)(2)(ii)(B) of this section; and

(B) Document in the NOC submitted under § 63.1207(j) the demonstrated gas flow rate-weighted average emissions that you calculate with the equation provided by paragraph (e)(2) of this section.

(f) Significant figures. The emission limits provided by paragraphs (a) and (b) of this section are presented with two significant figures. Although you must perform intermediate calculations using at

least three significant figures, you may round the resultant emission levels to two significant figures to document compliance.

(g) [Reserved]

(h) When you comply with the PM requirements of paragraphs (a)(7) or (b)(7) of this section, you are exempt from the New Source Performance Standard for PM and opacity under § 60.60 of this chapter.

[67 FR 6809, Feb. 13, 2002, as amended at 67 FR 6987, Feb. 14, 2002; 70 FR 59541, Oct. 12, 2005]

**§ 63.1205 What are the standards for hazardous waste LWAKs that are effective until compliance with the standards under § 63.1221?**

(a) Emission limits for existing sources. You must not discharge or cause combustion gases to be emitted into the atmosphere that contain:

(1) For dioxins and furans:

(i) Emissions in excess of 0.20 ng TEQ/dscm corrected to 7% O<sub>2</sub>;  
or

(ii) Rapid quench of the combustion gas temperature at the exit of the (last) combustion chamber (or exit of any waste heat recovery system) to 400 °F or lower based on the average of the test run average temperatures. You must also notify in writing the RCRA authority that you are complying with this option;

(2) Hg in excess of 120 µg/dscm corrected to 7% O<sub>2</sub>;

(3) Pb and Cd in excess of 250 µg/dscm, combined emissions, corrected to 7% O<sub>2</sub>;

(4) As, Be, and Cr in excess of 110 µg/dscm, combined emissions, corrected to 7% O<sub>2</sub>;

(5) CO and hydrocarbons.

(i) CO in excess of 100 ppmV, over an hourly rolling average (monitored continuously with a CEMS), dry basis and corrected to 7% O<sub>2</sub>. If you elect to comply with this CO standard rather than the hydrocarbon standard under paragraph (a)(5)(ii) of this section, you also must document that, during the DRE test runs or their equivalent as provided by § 63.1206(b)(7), hydrocarbons do not exceed 20 ppmV during those runs, over an hourly rolling average (monitored continuously with a CEMS), dry basis, corrected to 7% O<sub>2</sub>, and reported as propane; or

(ii) Hydrocarbons in excess of 20 ppmV, over an hourly rolling average, dry basis, corrected to 7% O<sub>2</sub>, and reported as propane;

(6) HCl/Cl<sub>2</sub> in excess of 600 ppmV, combined emissions, expressed as HCl equivalents, dry basis and corrected to 7% O<sub>2</sub>; and

(7) PM in excess of 57 mg/dscm corrected to 7% O<sub>2</sub>.

(b) Emission limits for new sources. You must not discharge or cause combustion gases to be emitted into the atmosphere that contain:

(1) For dioxins and furans:

(i) Emissions in excess of 0.20 ng TEQ/dscm corrected to 7% O<sub>2</sub>;  
or

(ii) Rapid quench of the combustion gas temperature at the exit of the (last) combustion chamber (or exit of any waste heat recovery system) to 400°F or lower based on the average of the test run average temperatures. You must also notify in writing the RCRA authority that you are complying with this option;

(2) Hg in excess of 120 µg/dscm corrected to 7% O<sub>2</sub>;

(3) Pb and Cd in excess of 43 µg/dscm, combined emissions, corrected to 7% O<sub>2</sub>;

(4) As, Be, and Cr in excess of 110 µg/dscm, combined emissions, corrected to 7% O<sub>2</sub>;

(5) CO and hydrocarbons.

(i) CO in excess of 100 ppmV, over an hourly rolling average (monitored continuously with a CEMS), dry basis and corrected to 7% O<sub>2</sub>. If you elect to comply with this CO standard rather than the hydrocarbon standard under paragraph (b)(5)(ii) of this section, you also must document that, during the DRE test runs or their equivalent as provided by § 63.1206(b)(7), hydrocarbons do not exceed 20 ppmV during those runs, over an hourly rolling average (monitored continuously with a CEMS), dry basis, corrected to 7% O<sub>2</sub>, and reported as propane; or

(ii) Hydrocarbons in excess of 20 ppmV, over an hourly rolling average, dry basis, corrected to 7% O<sub>2</sub>, and reported as propane;

(6) HCl/Cl<sub>2</sub> in excess of 600 ppmV, combined emissions, expressed as HCl equivalents, dry basis and corrected to 7% O<sub>2</sub>; and

(7) PM in excess of 57 mg/dscm corrected to 7% O<sub>2</sub>.

(c) DRE standard.

(1) 99.99% DRE. Except as provided in paragraph (c)(2) of this section, you must achieve a DRE of 99.99% for each POHC designated



under paragraph (c)(3) of this section. You must calculate DRE for each POHC from the following equation:

$$\text{DRE} = [1 - (W_{\text{out}} / W_{\text{in}})] \times 100\%$$

Where:

$W_{\text{in}}$  = mass feed rate of one POHC in a waste feedstream; and  
 $W_{\text{out}}$  = mass emission rate of the same POHC present in exhaust emissions prior to release to the atmosphere.

(2) 99.9999% DRE. If you burn the dioxin-listed hazardous wastes F020, F021, F022, F023, F026, or F027 (see § 261.31 of this chapter), you must achieve a DRE of 99.9999% for each POHC that you designate under paragraph (c)(3) of this section. You must demonstrate this DRE performance on POHCs that are more difficult to incinerate than tetra-, penta-, and hexachlorodibenzo-dioxins and dibenzofurans. You must use the equation in paragraph (c)(1) of this section to calculate DRE for each POHC. In addition, you must notify the Administrator of your intent to burn hazardous wastes F020, F021, F022, F023, F026, or F027.

(3) POHCs.

(i) You must treat the POHCs in the waste feed that you specify under paragraph (c)(3)(ii) of this section to the extent required by paragraphs (c)(1) and (c)(2) of this section.

(ii) You must specify one or more POHCs that are representative of the most difficult to destroy organic compounds in your hazardous waste feedstream. You must base this specification on the degree of difficulty of incineration of the organic constituents in the hazardous waste and on their concentration or mass in the hazardous waste feed, considering the results of hazardous waste analyses or other data and information.

(d) Significant figures. The emission limits provided by paragraphs (a) and (b) of this section are presented with two significant figures. Although you must perform intermediate calculations using at least three significant figures, you may round the resultant emission levels to two significant figures to document compliance.

[67 FR 6812, Feb. 13, 2002, as amended at 67 FR 77691, Dec. 19, 2002; 70 FR 59541, Oct. 12, 2005]

## **Monitoring and Compliance Provisions**

### **§ 63.1206 When and how must you comply with the standards and operating requirements?**

#### (a) Compliance dates

(1) Compliance dates for incinerators, cement kilns, and LWAKs that burn hazardous waste

(i) Compliance date for standards under §§ 63.1203, 63.1204, and 63.1205

(A) Compliance dates for existing sources. You must comply with the emission standards under §§ 63.1203, 63.1204, and 63.1205 and the other requirements of this subpart no later than the compliance date, September 30, 2003, unless the Administrator grants you an extension of time under § 63.6(i) or § 63.1213, except:

(1) Cement kilns are exempt from the bag leak detection system requirements under paragraph (c)(8) of this section;

(2) The bag leak detection system required under § 63.1206(c)(8) must be capable of continuously detecting and recording PM emissions at concentrations of 1.0 milligram per actual cubic meter unless you demonstrate under § 63.1209(g)(1) that a higher detection limit would adequately detect bag leaks, in lieu of the requirement for the higher detection limit under paragraph (c)(8)(ii)(A) of this section; and

(3) The excessive exceedances notification requirements for bag leak detection systems under paragraph (c)(8)(iv) of this section are waived.

(B) New or reconstructed sources.

(1) If you commenced construction or reconstruction of your hazardous waste combustor after April 19, 1996, you must comply with the emission standards under §§ 63.1203, 63.1204, and 63.1205 and the other requirements of this subpart by the later of September 30, 1999 or the date the source starts operations, except as provided by paragraphs (a)(1)(i)(A)(1) through (3) and (a)(1)(i)(B)(2) of this section. The costs of retrofitting and replacement of equipment that is installed specifically to comply with this subpart, between April 19, 1996 and a source's compliance date, are not considered to be reconstruction costs.

(2) For a standard under §§ 63.1203, 63.1204, and 63.1205 that is more stringent than the standard proposed on April 19, 1996, you may achieve compliance no later than September 30, 2003 if you comply with the standard proposed on April 19, 1996 after September 30, 1999. This exception does not apply, however, to new or reconstructed area source hazardous waste combustors that become major sources after September 30, 1999. As provided by § 63.6(b)(7), such sources must comply with the standards under §§ 63.1203, 63.1204, and 63.1205 at startup.

(ii) Compliance date for standards under §§ 63.1219, 63.1220, and 63.1221.

(A) Compliance dates for existing sources. You must comply with the emission standards under §§ 63.1219, 63.1220, and 63.1221 and the other requirements of this subpart no later than the compliance date, October 14, 2008, unless the Administrator grants you an extension of time under § 63.6(i) or § 63.1213.

(B) New or reconstructed sources.

(1) If you commenced construction or reconstruction of your hazardous waste combustor after April 20, 2004, you must comply with the new source emission standards under §§ 63.1219, 63.1220, and 63.1221 and the other requirements of this subpart by the later of October 12, 2005 or the date the source starts operations, except as provided by paragraphs (a)(1)(ii)(B)(2) and (a)(1)(ii)(B)(3) of this section. The costs of retrofitting and replacement of equipment that is installed specifically to comply with this subpart, between April 20, 2004, and a source's compliance date, are not considered to be reconstruction costs.

(2) For a standard under §§ 63.1219, 63.1220, and 63.1221 that is more stringent than the standard proposed on April 20, 2004, you may achieve compliance no later than October 14, 2008, if you comply with the standard proposed on April 20, 2004, after October 12, 2005. This exception does not apply, however, to new or reconstructed area source hazardous waste combustors that become major sources after October 14, 2008. As provided by § 63.6(b)(7), such sources must comply with the standards under §§ 63.1219, 63.1220, and 63.1221 at startup.

(3) Temporary PM standard under § 63.1220 for new cement kilns. You are not required to comply with the PM standard specified under § 63.1220(b)(7)(i) until EPA takes final action with regard to the PM standard pursuant to reconsideration proceedings. If you start up a new or reconstructed hazardous waste burning cement kiln as defined by this subpart, you must not emit PM in excess of 0.15 kg/Mg dry feed, as determined according to the requirements under § 63.1204(b)(7)(i) through (iii).

(2) Compliance dates for SFBs, LFBs, and HCl production furnaces that burn hazardous waste for standards under §§ 63.1216, 63.1217, and 63.1218.

(i) Compliance date for existing sources. You must comply with the standards of this subpart no later than the compliance date, October 14, 2008, unless the Administrator grants you an extension of time under § 63.6(i) or § 63.1213.

(ii) New or reconstructed sources.

(A) If you commenced construction or reconstruction of your hazardous waste combustor after October 12, 2005, you must comply with the new source emission standards of this subpart by the later of October 12, 2005, or the date the source starts operations, except as

provided by paragraph (a)(2)(ii)(B) of this section. The costs of retrofitting and replacement of equipment that is installed specifically to comply with this subpart, between April 20, 2004, and a source's compliance date, are not considered to be reconstruction costs.

(B) For a standard in the subpart that is more stringent than the standard proposed on April 20, 2004, you may achieve compliance no later than October 14, 2008, if you comply with the standard proposed on April 20, 2004, after October 12, 2005. This exception does not apply, however, to new or reconstructed area source hazardous waste combustors that become major sources after October 14, 2008. As provided by § 63.6(b)(7), such sources must comply with this subpart at startup.

(3) Early compliance. If you choose to comply with the emission standards of this subpart prior to the dates specified in paragraphs (a)(1) and (a)(2) of this section, your compliance date is the earlier of the date you postmark the Notification of Compliance under § 63.1207(j)(1) or the dates specified in paragraphs (a)(1) and (a)(2) of this section.

#### (b) Compliance with standards

(1) Applicability. The emission standards and operating requirements set forth in this subpart apply at all times except:

(i) During periods of startup, shutdown, and malfunction;  
and

(ii) When hazardous waste is not in the combustion chamber (i.e., the hazardous waste feed to the combustor has been cut off for a period of time not less than the hazardous waste residence time) and you have documented in the operating record that you are complying with all otherwise applicable requirements and standards promulgated under authority of sections 112 (e.g., 40 CFR part 63, subparts LLL, DDDDD, and NNNNN) or 129 of the Clean Air Act in lieu of the emission standards under §§ 63.1203, 63.1204, 63.1205, 63.1215, 63.1216, 63.1217, 63.1218, 63.1219, 63.1220, and 63.1221; the monitoring and compliance standards of this section and §§ 63.1207 through 63.1209, except the modes of operation requirements of § 63.1209(q); and the notification, reporting, and recordkeeping requirements of §§ 63.1210 through 63.1212.

(2) Methods for determining compliance. The Administrator will determine compliance with the emission standards of this subpart as provided by § 63.6(f)(2). Conducting performance testing under operating conditions representative of the extreme range of normal conditions is consistent with the requirements of §§ 63.6(f)(2)(iii)(B) and 63.7(e)(1) to conduct performance testing under representative operating conditions.

(3) Finding of compliance. The Administrator will make a finding concerning compliance with the emission standards and other requirements of this subpart as provided by § 63.6(f)(3).

(4) Extension of compliance with emission standards. The Administrator may grant an extension of compliance with the emission standards of this subpart as provided by §§ 63.6(i) and 63.1213.

(5) Changes in design, operation, or maintenance

(i) Changes that may adversely affect compliance. If you plan to change (as defined in paragraph (b)(5)(iii) of this section) the design, operation, or maintenance practices of the source in a manner that may adversely affect compliance with any emission standard that is not monitored with a CEMS:

(A) Notification. You must notify the Administrator at least 60 days prior to the change, unless you document circumstances that dictate that such prior notice is not reasonably feasible. The notification must include:

(1) A description of the changes and which emission standards may be affected; and

(2) A comprehensive performance test schedule and test plan under the requirements of § 63.1207(f) that will document compliance with the affected emission standard(s);

(B) Performance test. You must conduct a comprehensive performance test under the requirements of §§ 63.1207(f)(1) and (g)(1) to document compliance with the affected emission standard(s) and establish operating parameter limits as required under § 63.1209, and submit to the Administrator a Notification of Compliance under §§ 63.1207(j) and 63.1210(d); and

(C) Restriction on waste burning.

(1) Except as provided by paragraph (b)(5)(i)(C)(2) of this section, after the change and prior to submitting the notification of compliance, you must not burn hazardous waste for more than a total of 720 hours (renewable at the discretion of the Administrator) and only for the purposes of pretesting or comprehensive performance testing. Pretesting is defined at § 63.1207(h)(2)(i) and (ii).

(2) You may petition the Administrator to obtain written approval to burn hazardous waste in the interim prior to submitting a Notification of Compliance for purposes other than testing or pretesting. You must specify operating requirements, including limits on operating parameters, that you determine will ensure compliance with the emission standards of this subpart based on available information. The Administrator will review, modify as

necessary, and approve if warranted the interim operating requirements.

(ii) Changes that will not affect compliance. If you determine that a change will not adversely affect compliance with the emission standards or operating requirements, you must document the change in the operating record upon making such change. You must revise as necessary the performance test plan, Documentation of Compliance, Notification of Compliance, and start-up, shutdown, and malfunction plan to reflect these changes.

(iii) Definition of "change." For purposes of paragraph (b)(5) of this section, "change" means any change in design, operation, or maintenance practices that were documented in the comprehensive performance test plan, Notification of Compliance, or startup, shutdown, and malfunction plan.

(6) Compliance with the carbon monoxide and hydrocarbon emission standards. This paragraph applies to sources that elect to comply with the carbon monoxide and hydrocarbon emissions standards of this subpart by documenting continuous compliance with the carbon monoxide standard using a continuous emissions monitoring system and documenting compliance with the hydrocarbon standard during the DRE performance test or its equivalent.

(i) If a DRE test performed pursuant to § 63.1207(c)(2) is acceptable as documentation of compliance with the DRE standard, you may use the highest hourly rolling average hydrocarbon level achieved during the DRE test runs to document compliance with the hydrocarbon standard. An acceptable DRE test is any test for which the data and results are determined to meet quality assurance objectives (on a site-specific basis) such that the results adequately demonstrate compliance with the DRE standard.

(ii) If during this acceptable DRE test you did not obtain hydrocarbon emissions data sufficient to document compliance with the hydrocarbon standard, you must either:

(A) Perform, as part of the performance test, an "equivalent DRE test" to document compliance with the hydrocarbon standard. An equivalent DRE test is comprised of a minimum of three runs each with a minimum duration of one hour during which you operate the combustor as close as reasonably possible to the operating parameter limits that you established based on the initial DRE test. You must use the highest hourly rolling average hydrocarbon emission level achieved during the equivalent DRE test to document compliance with the hydrocarbon standard; or

(B) Perform a DRE test as part of the performance test.

(7) Compliance with the DRE standard.

(i) Except as provided in paragraphs (b) (7) (ii) and (b) (7) (iii) of this section:

(A) You must document compliance with the DRE standard under this subpart only once provided that you do not modify the source after the DRE test in a manner that could affect the ability of the source to achieve the DRE standard.

(B) You may use any DRE test data that documents that your source achieves the required level of DRE provided:

(1) You have not modified the design or operation of your source in a manner that could effect the ability of your source to achieve the DRE standard since the DRE test was performed; and,

(2) The DRE test data meet quality assurance objectives determined on a site-specific basis.

(ii) Sources that feed hazardous waste at locations other than the normal flame zone.

(A) Except as provided by paragraph (b) (7) (ii) (B) of this section, if you feed hazardous waste at a location in the combustion system other than the normal flame zone, then you must demonstrate compliance with the DRE standard during each comprehensive performance test;

(B)

(1) A cement kiln that feeds hazardous waste at a location other than the normal flame zone need only demonstrate compliance with the DRE standard during three consecutive comprehensive performance tests provided that:

(i) All three tests achieve the DRE standard in this subpart; and

(ii) The design, operation, and maintenance features of each of the three tests are similar;

(iii) The data in lieu restriction of § 63.1207(c) (2) (iv) does not apply when complying with the provisions of paragraph (b) (7) (ii) (B) of this section;

(2) If at any time you change your design, operation, and maintenance features in a manner that could reasonably be expected to affect your ability to meet the DRE standard, then you must comply with the requirements of paragraph (b) (7) (ii) (A) of this section.

(iii) For sources that do not use DRE previous testing to document conformance with the DRE standard pursuant to

§ 63.1207(c)(2), you must perform DRE testing during the initial comprehensive performance test.

(8) Applicability of PM and opacity standards during PM CEMS correlation tests.

(i) Any PM and opacity standards of parts 60, 61, 63, 264, 265, and 266 of this chapter (i.e., any title 40 particulate or opacity standards) applicable to a hazardous waste combustor do not apply while you conduct PM CEMS correlation tests (i.e., correlation with manual stack methods) under the conditions of paragraphs (b)(8)(iii) through (vii) of this section.

(ii) Any permit or other emissions or operating parameter limits or conditions, including any limitation on workplace practices, that are applicable to hazardous waste combustors to ensure compliance with any PM and opacity standards of parts 60, 61, 63, 264, 265, and 266 of this chapter (i.e., any title 40 particulate or opacity standards) do not apply while you conduct PM CEMS correlation tests under the conditions of paragraphs (b)(8)(iii) through (vii) of this section.

(iii) For the provisions of this section to apply, you must:

(A) Develop a PM CEMS correlation test plan that includes the following information. This test plan may be included as part of the comprehensive performance test plan required under §§ 63.1207(e) and (f):

(1) Number of test conditions and number of runs for each test condition;

(2) Target PM emission level for each test condition;

(3) How you plan to modify operations to attain the desired PM emission levels; and

(4) Anticipated normal PM emission levels; and

(B) Submit the test plan to the Administrator for approval at least 90 calendar days before the correlation test is scheduled to be conducted.

(iv) The Administrator will review and approve/disapprove the correlation test plan under the procedures for review and approval of the site-specific test plan provided by § 63.7(c)(3)(i) and (iii). If the Administrator fails to approve or disapprove the correlation test plan within the time period specified by § 63.7(c)(3)(i), the plan is considered approved, unless the Administrator has requested additional information.



(v) The PM and opacity standards and associated operating limits and conditions will not be waived for more than 96 hours, in the aggregate, for a correlation test, including all runs of all test conditions, unless more time is approved by the Administrator.

(vi) The stack sampling team must be on-site and prepared to perform correlation testing no later than 24 hours after you modify operations to attain the desired PM emissions concentrations, unless you document in the correlation test plan that a longer period of conditioning is appropriate.

(vii) You must return to operating conditions indicative of compliance with the applicable PM and opacity standards as soon as possible after correlation testing is completed.

(9) Alternative standards for existing or new hazardous waste burning LWAKs using MACT.

(i) You may petition the Administrator to request alternative standards to the mercury or HCl/Cl<sub>2</sub> emission standards of this subpart, to the SVMs emission standards under §§ 63.1205, 63.1221(a)(3)(ii), or 63.1221(b)(3)(ii), or to the LVMs emissions standards under §§ 63.1205, 63.1221(a)(4)(ii), or 63.1221(b)(4)(ii) if:

(A) You cannot achieve one or more of these standards while using maximum achievable control technology (MACT) because of raw material contributions to emissions of mercury, SVMs, LVMs, or HCl/Cl<sub>2</sub>; or

(B) You determine that mercury is not present at detectable levels in your raw material.

(ii) The alternative standard that you recommend under paragraph (b)(9)(i)(A) of this section may be an operating requirement, such as a hazardous waste feedrate limitation for metals and/or chlorine, and/or an emission limitation.

(iii) The alternative standard must include a requirement to use MACT, or better, applicable to the standard for which the source is seeking relief, as defined in paragraphs (b)(9)(viii) and (ix) of this section.

(iv) Documentation required.

(A) The alternative standard petition you submit under paragraph (b)(9)(i)(A) of this section must include data or information documenting that raw material contributions to emissions prevent you from complying with the emission standard even though the source is using MACT, as defined under paragraphs (b)(9)(viii) and (ix) of this section, for the standard for which you are seeking relief.

(B) Alternative standard petitions that you submit under paragraph (b) (9) (i) (B) of this section must include data or information documenting that mercury is not present at detectable levels in raw materials.

(v) You must include data or information with semivolatile metal and low volatility metal alternative standard petitions that you submit under paragraph (b) (9) (i) (A) of this section documenting that increased chlorine feedrates associated with the burning of hazardous waste, when compared to non-hazardous waste operations, do not significantly increase metal emissions attributable to raw materials.

(vi) You must include data or information with SVMs, LVMs, and HCl/Cl<sub>2</sub> alternative standard petitions that you submit under paragraph (b) (9) (i) (A) of this section documenting that SVMs, LVMs, and HCl/Cl<sub>2</sub> emissions attributable to the hazardous waste only will not exceed the emission standards of this subpart.

(vii) You must not operate pursuant to your recommended alternative standards in lieu of emission standards specified in this subpart:

(A) Unless the Administrator approves the provisions of the alternative standard petition request or establishes other alternative standards; and

(B) Until you submit a revised Notification of Compliance that incorporates the revised standards.

(viii) For purposes of this alternative standard provision, MACT for existing hazardous waste burning LWAKs is defined as:

(A) For mercury, a hazardous waste feedrate corresponding to an MTEC of 24 µg/dscm or less;

(B) For SVMs, a hazardous waste feedrate corresponding to an MTEC of 280,000 µg/dscm or less, and use of a PM control device that achieves PM emissions of 57 mg/dscm or less;

(C) For LVMs, a hazardous waste feedrate corresponding to an MTEC of 120,000 µg/dscm or less, and use of a PM control device that achieves PM emissions of 57 mg/dscm or less; and

(D) For HCl/Cl<sub>2</sub>, a hazardous waste chlorine feedrate corresponding to an MTEC of 2,000,000 µgm/dscm or less, and use of an air pollution control device with a HCl/Cl<sub>2</sub> removal efficiency of 85 percent or greater.

(ix) For purposes of this alternative standard provision, MACT for new hazardous waste burning LWAKs is defined as:

(A) For mercury, a hazardous waste feedrate corresponding to an MTEC of 4 µg/dscm or less;

(B) For SVMs, a hazardous waste feedrate corresponding to an MTEC of 280,000 µg/dscm or less, and use of a PM control device that achieves PM emissions of 57 mg/dscm or less;

(C) For LVMs, a hazardous waste feedrate corresponding to an MTEC of 46,000 µg/dscm or less, and use of a PM control device that achieves PM emissions of 57 mg/dscm or less;

(D) For HCl/Cl<sub>2</sub>, a hazardous waste chlorine feedrate corresponding to an MTEC of 14,000,000 µgm/dscm or less, and use of an air pollution control device with a HCl/Cl<sub>2</sub> removal efficiency of 99.6 percent or greater.

(10) Alternative standards for existing or new hazardous waste burning cement kilns using MACT.

(i) You may petition the Administrator to request alternative standards to the mercury or HCl/Cl<sub>2</sub> emission standards of this subpart, to the SVMs emission standards under §§ 63.1204, 63.1220(a)(3)(ii), or 63.1220(b)(3)(ii), or to the LVMs emissions standards under §§ 63.1204, 63.1220(a)(4)(ii), or 63.1220(b)(4)(ii) if:

(A) You cannot achieve one or more of these standards while using maximum achievable control technology (MACT) because of raw material contributions to emissions of mercury, SVMs, LVMs, or HCl/Cl<sub>2</sub>; or

(B) You determine that mercury is not present at detectable levels in your raw material.

(ii) The alternative standard that you recommend under paragraph (b)(10)(i)(A) of this section may be an operating requirement, such as a hazardous waste feedrate limitation for metals and/or chlorine, and/or an emission limitation.

(iii) The alternative standard must include a requirement to use MACT, or better, applicable to the standard for which the source is seeking relief, as defined in paragraphs (b)(10)(viii) and (ix) of this section.

(iv) Documentation required.

(A) The alternative standard petition you submit under paragraph (b)(10)(i)(A) of this section must include data or information documenting that raw material contributions to emissions prevent you from complying with the emission standard even though the source is using MACT, as defined in paragraphs (b)(10)(viii) and (ix) of this section, for the standard for which you are seeking relief.

(B) Alternative standard petitions that you submit under paragraph (b)(10)(i)(B) of this section must include data or

information documenting that mercury is not present at detectable levels in raw materials.

(v) You must include data or information with semivolatile metal and low volatile metal alternative standard petitions that you submit under paragraph (b)(10)(i)(A) of this section documenting that increased chlorine feedrates associated with the burning of hazardous waste, when compared to non-hazardous waste operations, do not significantly increase metal emissions attributable to raw materials.

(vi) You must include data or information with SVMs, LVMs, and HCl/Cl<sub>2</sub> alternative standard petitions that you submit under paragraph (b)(10)(i)(A) of this section documenting that emissions of the regulated metals and HCl/Cl<sub>2</sub> attributable to the hazardous waste only will not exceed the emission standards in this subpart.

(vii) You must not operate pursuant to your recommended alternative standards in lieu of emission standards specified in this subpart:

(A) Unless the Administrator approves the provisions of the alternative standard petition request or establishes other alternative standards; and

(B) Until you submit a revised Notification of Compliance that incorporates the revised standards.

(viii) For purposes of this alternative standard provision, MACT for existing hazardous waste burning cement kilns is defined as:

(A) For mercury, a hazardous waste feedrate corresponding to an MTEC of 88 µg/dscm or less;

(B) For SVMs, a hazardous waste feedrate corresponding to an MTEC of 31,000 µg/dscm or less, and use of a PM control device that achieves PM emissions of 0.15 kg/Mg dry feed or less;

(C) For LVMs, a hazardous waste feedrate corresponding to an MTEC of 54,000 µg/dscm or less, and use of a PM control device that achieves PM emissions of 0.15 kg/Mg dry feed or less; and

(D) For HCl/Cl<sub>2</sub>, a hazardous waste chlorine feedrate corresponding to an MTEC of 720,000 µgm/dscm or less.

(ix) For purposes of this alternative standard provision, MACT for new hazardous waste burning cement kilns is defined as:

(A) For mercury, a hazardous waste feedrate corresponding to an MTEC of 7 µg/dscm or less;

(B) For SVMs, a hazardous waste feedrate corresponding to an MTEC of 31,000 µg/dscm or less, and use of a PM control device that achieves PM emissions of 0.15 kg/Mg dry feed or less;

(C) For LVMS, a hazardous waste feedrate corresponding to an MTEC of 15,000  $\mu\text{g}/\text{dscm}$  or less, and use of a PM control device that achieves PM emissions of 0.15 kg/Mg dry feed or less;

(D) For  $\text{HCl}/\text{Cl}_2$ , a hazardous waste chlorine feedrate corresponding to an MTEC of 420,000  $\mu\text{gm}/\text{dscm}$  or less.

(11) Calculation of hazardous waste residence time. You must calculate the hazardous waste residence time and include the calculation in the performance test plan under § 63.1207(f) and the operating record. You must also provide the hazardous waste residence time in the Documentation of Compliance under § 63.1211(c) and the Notification of Compliance under §§ 63.1207(j) and 63.1210(d).

(12) Documenting compliance with the standards based on performance testing.

(i) You must conduct a minimum of three runs of a performance test required under § 63.1207 to document compliance with the emission standards of this subpart.

(ii) You must document compliance with the emission standards based on the arithmetic average of the emission results of each run, except that you must document compliance with the DRE standard for each run of the comprehensive performance test individually.

(13) Cement kilns and LWAKs that feed hazardous waste at a location other than the end where products are normally discharged and where fuels are normally fired.

(i) Cement kilns that feed hazardous waste at a location other than the end where products are normally discharged and where fuels are normally fired must comply with the carbon monoxide and hydrocarbon standards of this subpart as follows:

(A) For existing sources, you must not discharge or cause combustion gases to be emitted into the atmosphere that contain either:

(1) Hydrocarbons in the main stack in excess of 20 ppmV, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane; or

(2) Hydrocarbons both in the by-pass duct and at a preheater tower combustion gas monitoring location in excess of 10 ppmV, at each location, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane; or

(3) If the only firing location of hazardous waste upstream (in terms of gas flow) of the point where combustion gases are diverted into the bypass duct is at the kiln end where products are normally discharged, then both hydrocarbons at the preheater tower combustion gas monitoring location in excess of 10 ppmV, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane, and either hydrocarbons in the bypass duct in excess of 10 ppmV, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane, or carbon monoxide in excess of 100 ppmV, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, and corrected to 7 percent oxygen. If you comply with the carbon monoxide standard of 100 ppmV in the bypass duct, then you must also not discharge or cause combustion gases to be emitted into the atmosphere that contain hydrocarbons in the bypass duct in excess of 10 ppmV, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane, at any time during the DRE test runs or their equivalent as provided by § 63.1206(b) (7).

(B) For new sources, you must not discharge or cause combustion gases to be emitted into the atmosphere that contain either:

(1) Hydrocarbons in the main stack in excess of 20 ppmV, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane; or

(2)

(i) Hydrocarbons both in the by-pass duct and at a preheater tower combustion gas monitoring location in excess of 10 ppmV, at each location, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane, and

(ii) Hydrocarbons in the main stack, if construction of the kiln commenced after April 19, 1996 at a plant site where a cement kiln (whether burning hazardous waste or not) did not previously exist, to 50 ppmV, over a 30-day block average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane; or

(3)

(i) If the only firing location of hazardous waste upstream (in terms of gas flow) of the point where combustion gases are diverted into the bypass duct is at the kiln end where

products are normally discharged, then both hydrocarbons at the preheater tower combustion gas monitoring location in excess of 10 ppmV, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane, and either hydrocarbons in the by-pass duct in excess of 10 ppmV, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane, or carbon monoxide in excess of 100 ppmV, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, and corrected to 7 percent oxygen. If you comply with the carbon monoxide standard of 100 ppmV in the by-pass duct, then you must also not discharge or cause combustion gases to be emitted into the atmosphere that contain hydrocarbons in the by-pass duct in excess of 10 ppmV, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane, at any time during the DRE test runs or their equivalent as provided by § 63.1206(b)(7).

(ii) If construction of the kiln commenced after April 19, 1996 at a plant site where a cement kiln (whether burning hazardous waste or not) did not previously exist, hydrocarbons are limited to 50 ppmV, over a 30-day block average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane.

(ii) LWAKs that feed hazardous waste at a location other than the end where products are normally discharged and where fuels are normally fired must comply with the hydrocarbon standards of this subpart as follows:

(A) Existing sources must comply with the 20 ppmV hydrocarbon standard of this subpart;

(B) New sources must comply with the 20 ppmV hydrocarbon standard of this subpart.

(14) Alternative to the PM standard for incinerators.

(i) General. In lieu of complying with the PM standards under § 63.1203, you may elect to comply with the following alternative metal emission control requirements:

(ii) Alternative metal emission control requirements for existing incinerators.

(A) You must not discharge or cause combustion gases to be emitted into the atmosphere that contain cadmium, lead, and selenium in excess of 240 µgm/dscm, combined emissions, corrected to 7 percent oxygen; and,

(B) You must not discharge or cause combustion gases to be emitted into the atmosphere that contain antimony, arsenic, beryllium, chromium, cobalt, manganese, and nickel in excess of 97  $\mu\text{gm/dscm}$ , combined emissions, corrected to 7 percent oxygen.

(iii) Alternative metal emission control requirements for new incinerators.

(A) You must not discharge or cause combustion gases to be emitted into the atmosphere that contain cadmium, lead, and selenium in excess of 24  $\mu\text{gm/dscm}$ , combined emissions, corrected to 7 percent oxygen; and,

(B) You must not discharge or cause combustion gases to be emitted into the atmosphere that contain antimony, arsenic, beryllium, chromium, cobalt, manganese, and nickel in excess of 97  $\mu\text{gm/dscm}$ , combined emissions, corrected to 7 percent oxygen.

(iv) Operating limits. Semivolatile and low volatile metal operating parameter limits must be established to ensure compliance with the alternative emission limitations described in paragraphs (e)(2) and (e)(3) of this section pursuant to § 63.1209(n), except that semivolatile metal feedrate limits apply to lead, cadmium, and selenium, combined, and low volatile metal feedrate limits apply to arsenic, beryllium, chromium, antimony, cobalt, manganese, and nickel, combined.

(15) Alternative to the interim standards for mercury for cement and LWAKs.

(i) General. In lieu of complying with the applicable mercury standards of §§ 63.1204(a)(2) and (b)(2) for existing and new cement kilns and §§ 63.1205(a)(2) and (b)(2) for existing and new LWAKs, you may instead elect to comply with the alternative mercury standard described in paragraphs (b)(15)(ii) through (b)(15)(v) of this section.

(ii) Operating requirement. You must not exceed a hazardous waste feedrate corresponding to a maximum theoretical emission concentration (MTEC) of 120  $\mu\text{g/dscm}$  on a twelve-hour rolling average.

(iii) To document compliance with the operating requirement of paragraph (b)(15)(ii) of this section, you must:

(A) Monitor and record the feedrate of mercury for each hazardous waste feedstream according to § 63.1209(c);

(B) Monitor with a CMS and record in the operating record the gas flowrate (either directly or by monitoring a surrogate parameter that you have correlated to gas flowrate);



(C) Continuously calculate and record in the operating record a MTEC assuming mercury from all hazardous waste feedstreams is emitted;

(D) Interlock the MTEC calculated in paragraph (b)(15)(iii)(C) of this section to the AWFCO system to stop hazardous waste burning when the MTEC exceeds the operating requirement of paragraph (b)(15)(ii) of this section.

(iv) In lieu of the requirement in paragraph (b)(15)(iii) of this section, you may:

(A) Identify in the Notification of Compliance a minimum gas flowrate limit and a maximum feedrate limit of mercury from all hazardous waste feedstreams that ensures the MTEC calculated in paragraph (b)(15)(iii)(C) of this section is below the operating requirement of paragraph (b)(15)(ii) of this section; and

(B) Interlock the minimum gas flowrate limit and maximum feedrate limits in paragraph (b)(15)(iv)(A) of this section to the AWFCO system to stop hazardous waste burning when the gas flowrate or mercury feedrate exceeds the limits in paragraph (b)(15)(iv)(A) of this section.

(v) Notification requirement. You must notify in writing the RCRA authority that you intend to comply with the alternative standard.

(16) Compliance with subcategory standards for LFBs. You must comply with the mercury, SVM, LVM, and total chlorine standards for LFBs under § 63.1217 as follows:

(i) You must determine the as-fired heating value of each batch of hazardous waste fired by each firing system of the boiler so that you know the mass-weighted heating value of the hazardous waste fired at all times.

(ii) If the as-fired heating value of the hazardous waste is 10,000 Btu per pound or greater, you are subject to the thermal emission concentration standards (lb/million Btu) under § 63.1217.

(iii) If the as-fired heating value of the hazardous waste is less than 10,000 Btu/lb, you are subject to the mass or volume emission concentration standards (µgm/dscm or ppmv) under § 63.1217.

(iv) If the as-fired heating value of hazardous wastes varies above and below 10,000 Btu/lb over time, you are subject to the thermal concentration standards when the heating value is 10,000 Btu/lb or greater and the mass concentration standards when the heating value is less than 10,000 Btu/lb. You may elect to comply at all times with the more stringent operating requirements that ensure compliance with both the thermal emission concentration standards and the mass or volume emission concentration standards.

(c) Operating requirements

(1) General.

(i) You must operate only under the operating requirements specified in the Documentation of Compliance under § 63.1211(c) or the Notification of Compliance under §§ 63.1207(j) and 63.1210(d), except:

(A) During performance tests under approved test plans according to § 63.1207(e), (f), and (g), and

(B) Under the conditions of paragraph (b)(1)(i) or (ii) of this section;

(ii) The Documentation of Compliance and the Notification of Compliance must contain operating requirements including, but not limited to, the operating requirements in this section and § 63.1209;

(iii) Failure to comply with the operating requirements is failure to ensure compliance with the emission standards of this subpart;

(iv) Operating requirements in the Notification of Compliance are applicable requirements for purposes of parts 70 and 71 of this chapter;

(v) The operating requirements specified in the Notification of Compliance will be incorporated in the title V permit.

(2) SSMP.

(i) You are subject to the SSMP requirements of § 63.6(e)(3).

(ii) If you elect to comply with §§ 270.235(a)(1)(iii), 270.235(a)(2)(iii), or 270.235(b)(1)(ii) of this chapter to address RCRA concerns that you minimize emissions of toxic compounds from startup, shutdown, and malfunction events (including releases from emergency safety vents):

(A) The SSMP must include a description of potential causes of malfunctions, including releases from emergency safety vents, that may result in significant releases of hazardous air pollutants, and actions the source is taking to minimize the frequency and severity of those malfunctions.

(B) You must submit the SSMP to the Administrator for review and approval.

(1) Approval procedure. The Administrator will notify you of approval or intention to deny approval of the SSMP within 90 calendar days after receipt of the original request and

within 60 calendar days after receipt of any supplemental information that you submit. Before disapproving the plan, the Administrator will notify you of the Administrator's intention to disapprove the plan together with:

(i) Notice of the information and findings on which intended disapproval is based; and

(ii) Notice of opportunity for you to present additional information to the Administrator before final action on disapproval of the plan. At the time the Administrator notifies you of intention to disapprove the plan, the Administrator will specify how much time you will have after being notified on the intended disapproval to submit additional information.

(2) Responsibility of owners and operators. You are responsible for ensuring that you submit any supplementary and additional information supporting your plan in a timely manner to enable the Administrator to consider whether to approve the plan. Neither your submittal of the plan, nor the Administrator's failure to approve or disapprove the plan, relieves you of the responsibility to comply with the provisions of this subpart.

(C) Changes to the plan that may significantly increase emissions.

(1) You must request approval in writing from the Administrator within 5 days after making a change to the SSMP that may significantly increase emissions of hazardous air pollutants.

(2) To request approval of such changes to the SSMP, you must follow the procedures provided by paragraph (c)(2)(ii)(B) of this section for initial approval of the plan.

(iii) You must identify in the plan a projected oxygen correction factor based on normal operations to use during periods of startup and shutdown.

(iv) You must record the plan in the operating record.

(v) Operating under the startup, shutdown, and malfunction plan.

(A) Compliance with AWFCO requirements during malfunctions.

(1) During malfunctions, the AWFCO requirements of § 63.1206(c)(3) continue to apply, except for paragraphs (c)(3)(v) and (c)(3)(vi) of this section. If you exceed a part 63, Subpart EEE, of this chapter emission standard monitored by a CEMS or COMs or operating limit specified under § 63.1209, the AWFCO system must immediately and automatically cutoff the hazardous waste feed, except as provided by paragraph (c)(3)(viii) of this section. If the

malfunction itself prevents immediate and automatic cutoff of the hazardous waste feed, however, you must cease feeding hazardous waste as quickly as possible.

(2) Although the AWFCO requirements continue to apply during a malfunction, an exceedance of an emission standard monitored by a CEMS or COMS or operating limit specified under § 63.1209 is not a violation of this subpart EEE if you operate in accordance with § 63.6(e) (1).

(3) Excessive exceedances during malfunctions. For each set of 10 exceedances of an emission standard or operating requirement while hazardous waste remains in the combustion chamber (i.e., when the hazardous waste residence time has not transpired since the hazardous waste feed was cutoff) during a 60-day block period, you must:

(i) Within 45 days of the 10th exceedance, complete an investigation of the cause of each exceedance and evaluation of approaches to minimize the frequency, duration, and severity of each exceedance, and revise the SSMP as warranted by the evaluation to minimize the frequency, duration, and severity of each exceedance; and

(ii) Record the results of the investigation and evaluation in the operating record, and include a summary of the investigation and evaluation, and any changes to the SSMP, in the excess emissions report required under § 63.10(e) (3).

(B) Compliance with AWFCO requirements when burning hazardous waste during startup and shutdown.

(1) If you feed hazardous waste during startup or shutdown, you must include waste feed restrictions (e.g., type and quantity), and other appropriate operating conditions and limits in the SSMP.

(2) You must interlock the operating limits you establish under paragraph (c) (2) (v) (B) (1) of this section with the AWFCO system required under § 63.1206(c) (3), except for paragraphs (c) (3) (v) and (c) (3) (vi) of this section.

(3) When feeding hazardous waste during startup or shutdown, the AWFCO system must immediately and automatically cutoff the hazardous waste feed if you exceed the operating limits you establish under paragraph (c) (2) (v) (B) (1) of this section, except as provided by paragraph (c) (3) (viii) of this section.

(4) Although the AWFCO requirements of this paragraph (c) (2) (v) (B) (4) apply during startup and shutdown, an exceedance of an emission standard or operating limit is not a violation of this subpart EEE if you operate in accordance with § 63.6(e) (1).

(3) AWFCO

(i) General. Upon the compliance date, you must operate the HWC with a functioning system that immediately and automatically cuts off the hazardous waste feed, except as provided by paragraph (c)(3)(viii) of this section:

(A) When any of the following are exceeded: OPLs specified under § 63.1209; an emission standard monitored by a CEMS; and the allowable combustion chamber pressure;

(B) When the span value of any CMS detector, except a CEMS, is met or exceeded;

(C) Upon malfunction of a CMS monitoring an OPL specified under § 63.1209 or an emission level; or

(D) When any component of the AWFCO system fails.

(ii) Ducting of combustion gases. During an AWFCO, you must continue to duct combustion gasses to the air pollution control system while hazardous waste remains in the combustion chamber (i.e., if the hazardous waste residence time has not transpired since the hazardous waste feed cutoff system was activated).

(iii) Restarting waste feed. You must continue to monitor during the cutoff the operating parameters for which limits are established under § 63.1209 and the emissions required under that section to be monitored by a CEMS, and you must not restart the hazardous waste feed until the operating parameters and emission levels are within the specified limits.

(iv) Failure of the AWFCO system. If the AWFCO system fails to automatically and immediately cutoff the flow of hazardous waste upon exceedance of a parameter required to be interlocked with the AWFCO system under paragraph (c)(3)(i) of this section, you have failed to comply with the AWFCO requirements of paragraph (c)(3) of this section. If an equipment or other failure prevents immediate and automatic cutoff of the hazardous waste feed, however, you must cease feeding hazardous waste as quickly as possible.

(v) Corrective measures. If, after any AWFCO, there is an exceedance of an emission standard or operating requirement, irrespective of whether the exceedance occurred while hazardous waste remained in the combustion chamber (i.e., whether the hazardous waste residence time has transpired since the hazardous waste feed cutoff system was activated), you must investigate the cause of the AWFCO, take appropriate corrective measures to minimize future AWFCOs, and record the findings and corrective measures in the operating record.

(vi) Excessive exceedance reporting.

(A) For each set of 10 exceedances of an emission standard or operating requirement while hazardous waste remains in the combustion chamber (i.e., when the hazardous waste residence time has not transpired since the hazardous waste feed was cutoff) during a 60-day block period, you must submit to the Administrator a written report within 5 calendar days of the 10th exceedance documenting the exceedances and results of the investigation and corrective measures taken.

(B) On a case-by-case basis, the Administrator may require excessive exceedance reporting when fewer than 10 exceedances occur during a 60-day block period.

(vii) Testing. The AWFCO system and associated alarms must be tested at least weekly to verify operability, unless you document in the operating record that weekly inspections will unduly restrict or upset operations and that less frequent inspection will be adequate. At a minimum, you must conduct operability testing at least monthly. You must document and record in the operating record AWFCO operability test procedures and results.

(viii) Ramping down waste feed.

(A) You may ramp down the waste feedrate of pumpable hazardous waste over a period not to exceed one minute, except as provided by paragraph (c)(3)(viii)(B) of this section. If you elect to ramp down the waste feed, you must document ramp down procedures in the operating and maintenance plan. The procedures must specify that the ramp down begins immediately upon initiation of AWFCO and the procedures must prescribe a bona fide ramping down. If an emission standard or operating limit is exceeded during the ramp down, you have failed to comply with the emission standards or operating requirements of this subpart.

(B) If the AWFCO is triggered by an exceedance of any of the following operating limits, you may not ramp down the waste feed cutoff: Minimum combustion chamber temperature, maximum hazardous waste feedrate, or any hazardous waste firing system operating limits that may be established for your combustor.

#### (4) Emergency Safety Vent (ESV) openings

(i) Failure to meet standards. If an ESV opens when hazardous waste remains in the combustion chamber (i.e., when the hazardous waste residence time has not expired) during an event other than a malfunction as defined in the SSMP such that combustion gases are not treated as during the most recent CPT (e.g., if the combustion gas by-passes any emission control device that was operating during the performance test), you must document in the operating record whether you remain in compliance with the emission standards of this subpart considering emissions during the ESV opening event.

(ii) ESV operating plan.

(A) You must develop an ESV operating plan, comply with the operating plan, and keep the plan in the operating record.

(B) The ESV operating plan must provide detailed procedures for rapidly stopping the waste feed, shutting down the combustor, and maintaining temperature and negative pressure in the combustion chamber during the hazardous waste residence time, if feasible. The plan must include calculations and information and data documenting the effectiveness of the plan's procedures for ensuring that combustion chamber temperature and negative pressure are maintained as is reasonably feasible.

(iii) Corrective measures. After any ESV opening that results in a failure to meet the emission standards as defined in paragraph (c)(4)(i) of this section, you must investigate the cause of the ESV opening, take appropriate corrective measures to minimize such future ESV openings, and record the findings and corrective measures in the operating record.

(iv) Reporting requirements. You must submit to the Administrator a written report within 5 days of an ESV opening that results in failure to meet the emission standards of this subpart (as determined in paragraph (c)(4)(i) of this section) documenting the result of the investigation and corrective measures taken.

(5) Combustion system leaks.

(i) Combustion system leaks of hazardous air pollutants must be controlled by:

(A) Keeping the combustion zone sealed to prevent combustion system leaks; or

(B) Maintaining the maximum combustion zone pressure lower than ambient pressure using an instantaneous monitor; or

(C) Upon prior written approval of the Administrator, an alternative means of control to provide control of combustion system leaks equivalent to maintenance of combustion zone pressure lower than ambient pressure; or

(D) Upon prior written approval of the Administrator, other technique(s) which can be demonstrated to prevent fugitive emissions without use of instantaneous pressure limits; and

(ii) You must specify in the performance test workplan and Notification of Compliance the method that will be used to control combustion system leaks. If you control combustion system leaks by maintaining the combustion zone pressure lower than ambient pressure using an instantaneous monitor, you must also specify in the performance test workplan and Notification of Compliance the monitoring and recording frequency of the pressure monitor, and

specify how the monitoring approach will be integrated into the automatic waste feed cutoff system.

(6) Operator training and certification.

(i) You must establish training programs for all categories of personnel whose activities may reasonably be expected to directly affect emissions of hazardous air pollutants from the source. Such persons include, but are not limited to, chief facility operators, control room operators, continuous monitoring system operators, persons that sample and analyze feedstreams, persons that manage and charge feedstreams to the combustor, persons that operate emission control devices, and ash and waste handlers. Each training program shall be of a technical level commensurate with the person's job duties specified in the training manual. Each commensurate training program shall require an examination to be administered by the instructor at the end of the training course. Passing of this test shall be deemed the "certification" for personnel, except that, for control room operators, the training and certification program shall be as specified in paragraphs (c)(6)(iii) through (c)(6)(vi) of this section.

(ii) You must ensure that the source is operated and maintained at all times by persons who are trained and certified to perform these and any other duties that may affect emissions of hazardous air pollutants. A certified control room operator must be on duty at the site at all times the source is in operation.

(iii) Hazardous waste incinerator control room operators must:

(A) Be trained and certified under a site-specific, source-developed and implemented program that meets the requirements of paragraph (c)(6)(v) of this section; or

(B) Be trained under the requirements of, and certified under, one of the following American Society of Mechanical Engineers (ASME) standards: QHO-1-1994, QHO-1a-1996, or QHO-1-2004 (Standard for the Qualification and Certification of Hazardous Waste Incinerator Operators). If you elect to use the ASME program:

(1) Control room operators must, prior to the compliance date, achieve provisional certification, and must submit an application to ASME and be scheduled for the full certification exam. Within one year of the compliance date, control room operators must achieve full certification;

(2) New operators and operators of new sources must, before assuming their duties, achieve provisional certification, and must submit an application to ASME, and be scheduled for the full certification exam. Within one year of assuming their duties, these operators must achieve full certification; or



(C) Be trained and certified under a State program.

(iv) Control room operators of cement kilns, LWAKs, SFBs, LFBs, and hydrochloric acid production furnaces must be trained and certified under:

(A) A site-specific, source-developed and implemented program that meets the requirements of paragraph (c)(6)(v) of this section; or

(B) A State program.

(v) Site-specific, source developed and implemented training programs for control room operators must include the following elements:

(A) Training on the following subjects:

(1) Environmental concerns, including types of emissions;

(2) Basic combustion principles, including products of combustion;

(3) Operation of the specific type of combustor used by the operator, including proper startup, waste firing, and shutdown procedures;

(4) Combustion controls and continuous monitoring systems;

(5) Operation of air pollution control equipment and factors affecting performance;

(6) Inspection and maintenance of the combustor, continuous monitoring systems, and air pollution control devices;

(7) Actions to correct malfunctions or conditions that may lead to malfunction;

(8) Residue characteristics and handling procedures; and

(9) Applicable Federal, state, and local regulations, including Occupational Safety and Health Administration workplace standards; and

(B) An examination designed and administered by the instructor; and

(C) Written material covering the training course topics that may serve as reference material following completion of the course.

(vi) To maintain control room operator qualification under a site-specific, source developed and implemented training program as provided by paragraph (c)(6)(v) of this section, control room operators must complete an annual review or refresher course covering, at a minimum, the following topics:

(A) Update of regulations;

(B) Combustor operation, including startup and shutdown procedures, waste firing, and residue handling;

(C) Inspection and maintenance;

(D) Responses to malfunctions or conditions that may lead to malfunction; and

(E) Operating problems encountered by the operator.

(vii) You must record the operator training and certification program in the operating record.

(7) Operation and maintenance plan

(i) You must prepare and at all times operate according to an operation and maintenance plan that describes in detail procedures for operation, inspection, maintenance, and corrective measures for all components of the combustor, including associated pollution control equipment, that could affect emissions of regulated hazardous air pollutants.

(ii) The plan must prescribe how you will operate and maintain the combustor in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels achieved during the comprehensive performance test.

(iii) This plan ensures compliance with the operation and maintenance requirements of § 63.6(e) and minimizes emissions of pollutants, automatic waste feed cutoffs, and malfunctions.

(iv) You must record the plan in the operating record.

(8) Bag leak detection system requirements.

(i) If your combustor is equipped with a baghouse (fabric filter), you must continuously operate either:

(A) A bag leak detection system that meets the specifications and requirements of paragraph (c)(8)(ii) of this section and you must comply with the corrective measures and notification requirements of paragraphs (c)(8)(iii) and (iv) of this section; or

(B) A PM detection system under paragraph (c)(9) of this section.

(ii) Bag leak detection system specification and requirements.

(A) The bag leak detection system must be certified by the manufacturer to be capable of continuously detecting and recording PM emissions at concentrations of 1.0 milligrams per actual cubic meter unless you demonstrate, under § 63.1209(g)(1), that a higher detection limit would routinely detect PM loadings during normal operations;

(B) The bag leak detection system shall provide output of relative or absolute PM loadings;

(C) The bag leak detection system shall be equipped with an alarm system that will sound an audible alarm when an increase in relative particulate loadings is detected over a preset level;

(D) The bag leak detection system shall be installed and operated in a manner consistent with available written guidance from the U.S. Environmental Protection Agency or, in the absence of such written guidance, the manufacturer's written specifications and recommendations for installation, operation, and adjustment of the system;

(E) The initial adjustment of the system shall, at a minimum, consist of establishing the baseline output by adjusting the sensitivity (range) and the averaging period of the device, and establishing the alarm set points and the alarm delay time;

(F) Following initial adjustment, you must not adjust the sensitivity or range, averaging period, alarm set points, or alarm delay time, except as detailed in the operation and maintenance plan required under paragraph (c)(7) of this section. You must not increase the sensitivity by more than 100 percent or decrease the sensitivity by more than 50 percent over a 365 day period unless such adjustment follows a complete baghouse inspection which demonstrates the baghouse is in good operating condition;

(G) For negative pressure or induced air baghouses, and positive pressure baghouses that are discharged to the atmosphere through a stack, the bag leak detector shall be installed downstream of the baghouse and upstream of any wet acid gas scrubber; and

(H) Where multiple detectors are required, the system's instrumentation and alarm system may be shared among the detectors.

(iii) Bag leak detection system corrective measures requirements. The operating and maintenance plan required by paragraph (c)(7) of this section must include a corrective measures plan that specifies the procedures you will follow in the case of a bag leak

detection system alarm. The corrective measures plan must include, at a minimum, the procedures used to determine and record the time and cause of the alarm as well as the corrective measures taken to correct the control device malfunction or minimize emissions as specified below. Failure to initiate the corrective measures required by this paragraph is failure to ensure compliance with the emission standards in this subpart.

(A) You must initiate the procedures used to determine the cause of the alarm within 30 minutes of the time the alarm first sounds; and

(B) You must alleviate the cause of the alarm by taking the necessary corrective measure(s) which may include, but are not to be limited to, the following:

(1) Inspecting the baghouse for air leaks, torn or broken filter elements, or any other malfunction that may cause an increase in emissions;

(2) Sealing off defective bags or filter media;

(3) Replacing defective bags or filter media, or otherwise repairing the control device;

(4) Sealing off a defective baghouse compartment;

(5) Cleaning the bag leak detection system probe, or otherwise repairing the bag leak detection system; or

(6) Shutting down the combustor.

(iv) Excessive exceedances notification. If you operate the combustor when the detector response exceeds the alarm set-point more than 5 percent of the time during any 6-month block time period, you must submit a notification to the Administrator within 30 days of the end of the 6-month block time period that describes the causes of the exceedances and the revisions to the design, operation, or maintenance of the combustor or baghouse you are taking to minimize exceedances. To document compliance with this requirement:

(A) You must keep records of the date, time, and duration of each alarm, the time corrective action was initiated and completed, and a brief description of the cause of the alarm and the corrective action taken;

(B) You must record the percent of the operating time during each 6-month period that the alarm sounds;

(C) In calculating the operating time percentage, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted; and

(D) If corrective action is required, each alarm shall be counted as a minimum of 1 hour.

(9) PM detection system requirements for electrostatic precipitators and ionizing wet scrubbers. If your combustor is equipped with an electrostatic precipitator or ionizing wet scrubber, and you elect not to establish under § 63.1209(m) (1) (iv) site-specific control device operating parameter limits that are linked to the automatic waste feed cutoff system under paragraph (c) (3) of this section, you must continuously operate a PM detection system that meets the specifications and requirements of paragraph (c) (9) (i) through (iii) of this section and you must comply with the corrective measures and notification requirements of paragraphs (c) (9) (iv) through (v) of this section.

(i) PM detection system requirements.

(A) The PM detection system must be certified by the manufacturer to be capable of continuously detecting and recording PM emissions at concentrations of 1.0 milligrams per actual cubic meter unless you demonstrate, under § 63.1209(g) (1), that a higher detection limit would routinely detect PM loadings during normal operations;

(B) The PM detector shall provide output of relative or absolute PM loadings;

(C) The PM detection system shall be equipped with an alarm system that will sound an audible alarm when an increase in relative or absolute particulate loadings is detected over the set-point

(D) You must install, operate, and maintain the PM detection system in a manner consistent with the provisions of paragraph (c) (9) of this section and available written guidance from the U.S. Environmental Protection Agency or, in the absence of such written guidance, the manufacturer's written specifications and recommendations for installation, operation, maintenance and quality assurance of the system;

(E) You must include procedures for installation, operation, maintenance, and quality assurance of the PM detection system in the site-specific continuous monitoring system test plan required under § 63.8(e) (3) of this chapter.

(F) Where multiple detectors are required to monitor multiple control devices, the system's instrumentation and alarm system may be shared among the detectors.

(G) You must establish the alarm set-point as provided by either paragraph (c) (9) (ii) or paragraph (c) (9) (iii) of this section.

(ii) Establishing the alarm set-point without extrapolation.

(A) The alarm set-point is the average of the test run averages of the detector response achieved during the comprehensive performance test demonstrating compliance with the PM emission standard.

(B) During the comprehensive performance test, you may simulate emission concentrations at the upper end of the range of normal operations by means including feeding high levels of ash and detuning the emission control equipment.

(C) You must comply with the alarm set-point on a 6-hour rolling average, updated each hour with a one-hour block average that is the average of the detector responses over each 15-minute block;

(iii) Establishing the alarm set-point with extrapolation. You may extrapolate the average of the test run averages of the detector response achieved during the comprehensive performance test as provided by paragraph (c)(9)(iii)(A) of this section to establish an alarm level after you approximate the correlation of the detector response to PM concentration as prescribed by paragraph (c)(9)(iii)(B) of this section. You must comply with the extrapolated alarm set-point on a 6-hour rolling average, updated each hour with a one-hour block average that is the average of the detector responses over each 15-minute block.

(A) You may extrapolate the detector response up to a PM concentration that is 50% of the PM emission standard or 125% of the highest PM concentration used to develop the correlation under paragraph (c)(9)(iii)(B) of this section, whichever is greater. The extrapolated emission concentration must not exceed the PM emission standard.

(B) To establish an approximate correlation of the detector response to PM emission concentrations, you should use as guidance Performance Specification-11 for PM CEMS (40 CFR Part 60, Appendix B), except that you need only conduct 5 runs to establish the initial correlation under Section 8.6 of Performance Specification 11.

(C) For quality assurance, you should use as guidance Procedure 2 of Appendix F to Part 60 of this chapter and the detector manufacturer's recommended procedures for periodic quality assurance checks and tests, except that:

(1) You must conduct annual Relative Response Audits as prescribed by Procedure 2 of Appendix F to Part 60 of this chapter (Section 10.3(6));

(2) You need only conduct Relative Response Audits on a 3-year interval after passing two sequential annual Relative Response Audits.

(D) An exceedance of the PM emission standard by a PM detection system for which particulate emission concentrations have been approximately correlated with the detector response under paragraph (c)(9)(iii) of this section is not evidence that the standard has been exceeded. The approximate correlation is used for compliance assurance to determine when corrective measures must be taken rather than for compliance monitoring.

(iv) PM detection system corrective measures requirements. The operating and maintenance plan required by paragraph (c)(7) of this section must include a corrective measures plan that specifies the procedures you will follow in the case of a PM detection system alarm. The corrective measures plan must include, at a minimum, the procedures used to determine and record the time and cause of the alarm as well as the corrective measures taken to correct the control device malfunction or minimize emissions as specified below. Failure to initiate the corrective measures required by this paragraph is failure to ensure compliance with the emission standards in this subpart.

(A) You must initiate the procedures used to determine the cause of the alarm within 30 minutes of the time the alarm first sounds; and

(B) You must alleviate the cause of the alarm by taking the necessary corrective measure(s) which may include shutting down the combustor.

(v) Excessive exceedances notification. If you operate the combustor when the detector response exceeds the alarm set-point more than 5 percent of the time during any 6-month block time period, you must submit a notification to the Administrator within 30 days of the end of the 6-month block time period that describes the causes of the exceedances and the revisions to the design, operation, or maintenance of the combustor or emission control device you are taking to minimize exceedances. To document compliance with this requirement:

(A) You must keep records of the date, time, and duration of each alarm, the time corrective action was initiated and completed, and a brief description of the cause of the alarm and the corrective action taken;

(B) You must record the percent of the operating time during each 6-month period that the alarm sounds;

(C) In calculating the operating time percentage, if inspection of the emission control device demonstrates that no corrective action is required, no alarm time is counted; and

(D) If corrective action is required, each alarm shall be counted as a minimum of 1 hour.

[64 FR 53038, Sept. 30, 1999, as amended at 65 FR 42298, July 10, 2000; 65 FR 67271, Nov. 9, 2000; 66 FR 24272, May 14, 2001; 66 FR 35103, July 3, 2001; 66 FR 63317, Dec. 7, 2001; 67 FR 6813, Feb. 13, 2002; 67 FR 6989, Feb. 14, 2002; 67 FR 77691, Dec. 19, 2002; 70 FR 59541, Oct. 12, 2005; 70 FR 75047, Dec. 19, 2005; 71 FR 20459, Apr. 20, 2006; 71 FR 62393, Oct. 25, 2006]

**§ 63.1207 What are the performance testing requirements?**

(a) General. The provisions of § 63.7 apply, except as noted below.

(b) Types of performance tests

(1) CPT. You must conduct CPTs to demonstrate compliance with the emission standards provided by this subpart, establish limits for the operating parameters provided by § 63.1209, and demonstrate compliance with the PSs for CMSs.

(2) Confirmatory performance test. You must conduct confirmatory performance tests to:

(i) Demonstrate compliance with the D/F emission standard when the source operates under normal operating conditions; and

(ii) Conduct a performance evaluation of CMSs required for compliance assurance with the D/F emission standard under § 63.1209(k).

(3) One-Time D/F Test for Sources Not Subject to a Numerical D/F Standard. For SFBs and HCl production furnaces, for LWAKs that are not subject to a numerical D/F emission standard under § 63.1221, and LFBs that are not subject to a numerical D/F emission standard under § 63.1217, you must conduct a one-time emission test for D/F under feed and operating conditions that are most likely to reflect daily maximum operating variability, similar to a D/F CPT.

(i) You must conduct the D/F emissions test no later than the deadline for conducting the initial CPT.

(ii) You may use D/F emissions data from previous testing to meet this requirement, provided that:

(A) The testing was conducted under feed and operating conditions that are most likely to reflect daily maximum operating variability, similar to a D/F compliance test;

(B) You have not changed the design or operation of the source in a manner that could significantly affect stack gas D/F emission concentrations; and

(C) The data meet quality assurance objectives that may be determined on a site-specific basis.



(iii) You may use D/F emissions data from a source to represent emissions from another on-site source in lieu of testing (i.e., data in lieu of testing) if the design and operation, including hazardous waste feed and other feedstreams, of the sources are identical.

(iv) You must include the results of the one-time D/F emissions test with the results of the initial CPT in the NOC.

(v) You must repeat the D/F emissions test if you change the design or operation of the source in a manner that may increase D/F emissions.

(c) Initial CPT

(1) Test date. Except as provided by paragraphs (c)(2) and (c)(3) of this section, you must commence the initial CPT not later than 6 months after the compliance date.

(2) Data in lieu of the initial CPT.

(i) You may request that previous emissions test data serve as documentation of conformance with the emission standards of this subpart provided that the previous testing:

(A) Was initiated after 54 months prior to the compliance date, except as provided by paragraphs (c)(2)(iii) or (c)(2)(iv) of this section;

(B) Results in data that meet quality assurance objectives (determined on a site-specific basis) such that the results demonstrate compliance with the applicable standards;

(C) Was in conformance with the requirements of paragraph (g)(1) of this section; and

(D) Was sufficient to establish the applicable OPLs under § 63.1209.

(ii) You must submit data in lieu of the initial CPT in lieu of (i.e., if the data are in lieu of all performance testing) or with the notification of performance test required under paragraph (e) of this section.

(iii) The data in lieu test age restriction provided in paragraph (c)(2)(i)(A) of this section does not apply for the duration of the interim standards (i.e., the standards published in the Federal Register on February 13, 2002, 67 FR 6792). See 40 CFR parts 63, 264, 265, 266, 270, and 271 revised as of July 1, 2002. Paragraph (c)(2)(i)(A) of this section does not apply until EPA promulgates permanent replacement standards pursuant to the Settlement Agreement noticed in the Federal Register on November 16, 2001 (66 FR 57715).

(iv) The data in lieu test age restriction provided in paragraph (c)(2)(i)(A) of this section does not apply to DRE data provided you do not feed hazardous waste at a location in the combustion system other than the normal flame zone.

(3) For incinerators, cement kilns, and LWAKs, you must commence the initial CPT to demonstrate compliance with the standards under §§ 63.1219, 63.1220, and 63.1221 not later than 12 months after the compliance date.

(d) Frequency of testing. Except as otherwise specified in paragraph (d)(4) of this section, you must conduct testing periodically as prescribed in paragraphs (d)(1) through (d)(3) of this section. The date of commencement of the initial CPT is the basis for establishing the deadline to commence the initial confirmatory performance test and the next CPT. You may conduct performance testing at any time prior to the required date. The deadline for commencing subsequent confirmatory and comprehensive performance testing is based on the date of commencement of the previous CPT. Unless the Administrator grants a time extension under paragraph (i) of this section, you must conduct testing as follows:

(1) Comprehensive performance testing. Except as otherwise specified in paragraph (d)(4) of this section, you must commence testing no later than 61 months after the date of commencing the previous CPT. If you submit data in lieu of the initial performance test, you must commence the subsequent CPT within 61 months of commencing the test used to provide the data in lieu of the initial performance test.

(2) Confirmatory performance testing. Except as otherwise specified in paragraph (d)(4) of this section, you must commence confirmatory performance testing no later than 31 months after the date of commencing the previous CPT. If you submit data in lieu of the initial performance test, you must commence the initial confirmatory performance test within 31 months of the date 6 months after the compliance date. To ensure that the confirmatory test is conducted approximately midway between CPTs, the Administrator will not approve a test plan that schedules testing within 18 months of commencing the previous CPT.

(3) Duration of testing. You must complete performance testing within 60 days after the date of commencement, unless the Administrator determines that a time extension is warranted based on your documentation in writing of factors beyond your control that prevent you from meeting the 60-day deadline.

(4) Applicable testing requirements under the interim standards.

(i) Waiver of periodic CPTs. Except as provided in paragraph (c)(2) of this section, you must conduct only an initial CPT under the interim standards (i.e., the standards published in the Federal Register on February 13, 2002); all subsequent comprehensive performance testing requirements are waived under the interim

standards. The provisions in the introductory text to paragraph (d) and in paragraph (d)(1) of this section do not apply until EPA promulgates permanent replacement standards pursuant to the Settlement Agreement noticed in the Federal Register on November 16, 2001.

(ii) Waiver of confirmatory performance tests. You are not required to conduct a confirmatory test under the interim standards (i.e., the standards published in the Federal Register on February 13, 2002). The confirmatory testing requirements in the introductory text to paragraph (d) and in paragraph (d)(2) of this section are waived until EPA promulgates permanent replacement standards pursuant to the Settlement Agreement noticed in the Federal Register on November 16, 2001.

(e) Notification of performance test and CMS performance evaluation, and approval of test plan and CMS performance evaluation plan.

(1) The provisions of § 63.7(b) and (c) and § 63.8(e) apply, except:

(i) CPT. You must submit to the Administrator a notification of your intention to conduct a CPT and CMS performance evaluation and a site-specific test plan and CMS performance evaluation test plan at least 1 year before the performance test and performance evaluation are scheduled to begin.

(A) The Administrator will notify you of approval or intent to deny approval of the site-specific test plan and CMS performance evaluation test plan within 9 months after receipt of the original plan.

(B) You must submit to the Administrator a notification of your intention to conduct the CPT at least 60 calendar days before the test is scheduled to begin.

(ii) Confirmatory performance test. You must submit to the Administrator a notification of your intention to conduct a confirmatory performance test and CMS performance evaluation and a site-specific test plan and CMS performance evaluation test plan at least 60 calendar days before the performance test is scheduled to begin. The Administrator will notify you of approval or intent to deny approval of the site-specific test plan and CMS performance evaluation test plan within 30 calendar days after receipt of the original test plans.

(2) You must make your site-specific test plan and CMS performance evaluation test plan available to the public for review no later than 60 calendar days before initiation of the test. You must issue a public notice to all persons on your facility/public mailing list (developed pursuant to 40 CFR §§ 70.7(h), 71.11(d)(3)(i)(E) and 124.10(c)(1)(ix)) announcing the availability of the test plans and the location where the test plans are available for review. The test plans must be accessible to the public for 60 calendar days, beginning on the date that you issue your public notice. The location must be

unrestricted and provide access to the public during reasonable hours and provide a means for the public to obtain copies. The notification must include the following information at a minimum:

- (i) The name and telephone number of the source's contact person;
- (ii) The name and telephone number of the regulatory agency's contact person;
- (iii) The location where the test plans and any necessary supporting documentation can be reviewed and copied;
- (iv) The time period for which the test plans will be available for public review; and
- (v) An expected time period for commencement and completion of the performance test and CMS performance evaluation test.

(3) Petitions for time extension if Administrator fails to approve or deny test plans. You may petition the Administrator under § 63.7(h) to obtain a "waiver" of any performance test—initial or periodic performance test; comprehensive or confirmatory test. The "waiver" would be implemented as an extension of time to conduct the performance test at a later date.

- (i) Qualifications for the waiver.

(A) You may not petition the Administrator for a waiver under this section if the Administrator has issued a notification of intent to deny your test plan(s) under § 63.7(c) (3) (i) (B);

(B) You must submit a site-specific emissions testing plan and a CMS performance evaluation test plan at least 1 year before a CPT is scheduled to begin as required by paragraph (c) (1) of this section, or at least 60 days before a confirmatory performance test is scheduled to begin as required by paragraph (d) of this section. The test plans must include all required documentation, including the substantive content requirements of paragraph (f) of this section and § 63.8(e); and

(C) You must make a good faith effort to accommodate the Administrator's comments on the test plans.

- (ii) Procedures for obtaining a waiver and duration of the waiver:

(A) You must submit to the Administrator a waiver petition or request to renew the petition under § 63.7(h) separately for each source at least 60 days prior to the scheduled date of the performance test;

(B) The Administrator will approve or deny the petition within 30 days of receipt and notify you promptly of the decision;

(C) The Administrator will not approve an individual waiver petition for a duration exceeding 6 months;

(D) The Administrator will include a sunset provision in the waiver ending the waiver within 6 months;

(E) You may submit a revised petition to renew the waiver under § 63.7(h)(3)(iii) at least 60 days prior to the end date of the most recently approved waiver petition;

(F) The Administrator may approve a revised petition for a total waiver period up to 12 months.

(iii) Content of the waiver.

(A) You must provide documentation to enable the Administrator to determine that the source is meeting the relevant standard(s) on a continuous basis as required by § 63.7(h)(2). For extension requests for the initial CPT, you must submit your DOC to assist the Administrator in making this determination.

(B) You must include in the petition information justifying your request for a waiver, such as the technical or economic infeasibility, or the impracticality, of the affected source performing the required test, as required by § 63.7(h)(3)(iii).

(iv) Public notice. At the same time that you submit your petition to the Administrator, you must notify the public (e.g., distribute a notice to the facility/public mailing list developed pursuant to 40 CFR §§ 70.7(h), 71.11(d)(3)(i)(E) and 124.10(c)(1)(ix)) of your petition to waive a performance test. The notification must include all of the following information at a minimum:

(A) The name and telephone number of the source's contact person;

(B) The name and telephone number of the regulatory agency's contact person;

(C) The date the source submitted its site-specific performance test plan and CMS performance evaluation test plans; and

(D) The length of time requested for the waiver.

(f) Content of performance test plan. The provisions of §§ 63.7(c)(2)(i)-(iii) and (v) regarding the content of the test plan apply. In addition, you must include the following information in the test plan:

(1) Content of CPT plan.

(i) An analysis of each feedstream, including hazardous waste, other fuels, and industrial furnace feedstocks, as fired, that includes:

(A) Heating value, levels of ash (for hazardous waste incinerators only), levels of SVMs, LVMs, Hg, and total chlorine (organic and inorganic); and

(B) Viscosity or description of the physical form of the feedstream;

(ii) For organic HAPs established by 42 U.S.C. 7412(b)(1), excluding caprolactam (CAS number 105602) as provided by § 63.60:

(A) Except as provided by paragraph (f)(1)(ii)(D) of this section, an identification of such organic HAPs that are present in each hazardous waste feedstream. You need not analyze for organic HAPs that would reasonably not be expected to be found in the feedstream. You must identify any constituents you exclude from analysis and explain the basis for excluding them. You must conduct the feedstream analysis according to § 63.1208(b)(8);

(B) An approximate quantification of such identified organic HAPs in the hazardous waste feedstreams, within the precision produced by analytical procedures of § 63.1208(b)(8); and

(C) A description of blending procedures, if applicable, prior to firing the hazardous waste feedstream, including a detailed analysis of the materials prior to blending, and blending ratios.

(D) The Administrator may approve on a case-by-case basis a hazardous waste feedstream analysis for organic HAPs in lieu of the analysis required under paragraph (f)(1)(ii)(A) of this section if the reduced analysis is sufficient to ensure that the POHCs used to demonstrate compliance with the applicable DRE standards of this subpart continue to be representative of the most difficult to destroy organic compounds in your hazardous waste feedstreams;

(iii) A detailed engineering description of the HWC, including:

(A) Manufacturer's name and model number of the HWC;

(B) Type of HWC;

(C) Maximum design capacity in appropriate units;

(D) Description of the feed system for each feedstream;

(E) Capacity of each feed system;

(F) Description of automatic hazardous waste feed cutoff system(s);

(G) Description of the design, operation, and maintenance practices for any air pollution control system; and

(H) Description of the design, operation, and maintenance practices of any stack gas monitoring and pollution control monitoring systems;

(iv) A detailed description of sampling and monitoring procedures including sampling and monitoring locations in the system, the equipment to be used, sampling and monitoring frequency, and planned analytical procedures for sample analysis;

(v) A detailed test schedule for each hazardous waste for which the performance test is planned, including date(s), duration, quantity of hazardous waste to be burned, and other relevant factors;

(vi) A detailed test protocol, including, for each hazardous waste identified, the ranges of hazardous waste feed rate for each feed system, and, as appropriate, the feed rates of other fuels and feedstocks, and any other relevant parameters that may affect the ability of the HWC to meet the emission standards;

(vii) A description of, and planned operating conditions for, any emission control equipment that will be used;

(viii) Procedures for rapidly stopping the hazardous waste feed and controlling emissions in the event of an equipment malfunction;

(ix) A determination of the hazardous waste residence time as required by § 63.1206(b)(11);

(x) If you are requesting to extrapolate metal feed rate limits from CPT levels under §§ 63.1209(l)(1)(v) or 63.1209(n)(2)(vii):

(A) A description of the extrapolation methodology and rationale for how the approach ensures compliance with the emission standards;

(B) Documentation of the historical range of normal (i.e., other than during compliance testing) metals feed rates for each feedstream;

(C) Documentation that the level of spiking recommended during the performance test will mask sampling and analysis imprecision and inaccuracy to the extent that the extrapolated feed rate limits adequately assure compliance with the emission standards;

(xi) If you do not continuously monitor regulated constituents in natural gas, process air feedstreams, and feedstreams from vapor recovery systems under § 63.1209(c)(5), you must include documentation of the expected levels of regulated constituents in those feedstreams;

(xii) Documentation justifying the duration of system conditioning required to ensure the combustor has achieved steady-state operations under performance test operating conditions, as provided by paragraph (g)(1)(iii) of this section;

(xiii) For cement kilns with in-line raw mills, if you elect to use the emissions averaging provision of this subpart, you must notify the Administrator of your intent in the initial (and subsequent) CPT plan, and provide the information required by the emission averaging provision;

(xiv) For preheater or preheater/precalciner cement kilns with dual stacks, if you elect to use the emissions averaging provision of this subpart, you must notify the Administrator of your intent in the initial (and subsequent) CPT plan, and provide the information required by the emission averaging provision;

(xv) If you request to use Method 23 for D/F you must provide the information required under § 63.1208(b)(1)(i)(B);

(xvi) If you are not required to conduct performance testing to document compliance with the Hg, SVMS, LVMS, or HCl/Cl<sub>2</sub> emission standards under paragraph (m) of this section, you must include with the CPT plan documentation of compliance with the provisions of that section.

(xvii) If you propose to use a surrogate for measuring or monitoring gas flow rate, you must document in the CPT plan that the surrogate adequately correlates with gas flow rate, as required by paragraph (m)(7) of this section, and § 63.1209(j)(2), (k)(3), (m)(2)(i), (n)(5)(i), and (o)(2)(i).

(xviii) You must submit an application to request alternative monitoring under § 63.1209(g)(1) not later than with the CPT plan, as required by § 63.1209(g)(1)(iii)(A).

(xix) You must document the temperature location measurement in the CPT plan, as required by §§ 63.1209(j)(1)(i) and 63.1209(k)(2)(i).

(xx) If your source is equipped with activated carbon injection, you must document in the CPT plan:

(A) The manufacturer specifications for minimum carrier fluid flow rate or pressure drop, as required by § 63.1209(k)(6)(ii); and

(B) Key parameters that affect carbon adsorption, and the operating limits you establish for those parameters based on the carbon used during the performance test, if you elect not to specify and use the brand and type of carbon used during the CPT, as required by § 63.1209(k)(6)(iii).



(xxi) If your source is equipped with a carbon bed system, and you elect not to specify and use the brand and type of carbon used during the CPT, you must include in the CPT plan key parameters that affect carbon adsorption, and the operating limits you establish for those parameters based on the carbon used during the performance test, as required by § 63.1209(k)(7)(ii).

(xxii) If you feed a D/F inhibitor into the combustion system, you must document in the CPT plan key parameters that affect the effectiveness of the inhibitor, and the operating limits you establish for those parameters based on the inhibitor fed during the performance test, if you elect not to specify and use the brand and type of inhibitor used during the CPT, as required by § 63.1209(k)(9)(ii).

(xxiii) If your source is equipped with a wet scrubber and you elect to monitor solids content of the scrubber liquid manually but believe that hourly monitoring of solids content is not warranted, you must support an alternative monitoring frequency in the CPT plan, as required by § 63.1209(m)(1)(i)(B)(1)(i).

(xxiv) If your source is equipped with a PM control device other than a wet scrubber, baghouse, or electrostatic precipitator, you must include in the CPT plan:

(A) Documentation to support the OPLs you establish for the control device, as required by § 63.1209(m)(1)(iv)(A)(4); and

(B) Support for the use of manufacturer specifications if you recommend such specifications in lieu of basing operating limits on performance test operating levels, as required by § 63.1209(m)(1)(iv)(D).

(xxv) If your source is equipped with a dry scrubber to control HCl/Cl<sub>2</sub>, you must document in the CPT plan key parameters that affect adsorption, and the limits you establish for those parameters based on the sorbent used during the performance test, if you elect not to specify and use the brand and type of sorbent used during the CPT, as required by § 63.1209(o)(4)(iii)(A); and

(xxvi) For purposes of calculating SVM, LVM, Hg, and total chlorine (organic and inorganic), and ash feed rate limits, a description of how you will handle performance test feedstream analytical results that determines these constituents are not present at detectable levels.

(xxvii) Such other information as the Administrator reasonably finds necessary to determine whether to approve the performance test plan.

(2) Content of confirmatory test plan.

(i) A description of your normal hydrocarbon or CO operating levels, as specified in paragraph (g)(2)(i) of this section, and an explanation of how these normal levels were determined;

(ii) A description of your normal applicable operating parameter levels, as specified in paragraph (g)(2)(ii) of this section, and an explanation of how these normal levels were determined;

(iii) A description of your normal chlorine operating levels, as specified in paragraph (g)(2)(iii) of this section, and an explanation of how these normal levels were determined;

(iv) If you use carbon injection or a carbon bed, a description of your normal cleaning cycle of the PM control device, as specified in paragraph (g)(2)(iv) of this section, and an explanation of how these normal levels were determined;

(v) A detailed description of sampling and monitoring procedures including sampling and monitoring locations in the system, the equipment to be used, sampling and monitoring frequency, and planned analytical procedures for sample analysis;

(vi) A detailed test schedule for each hazardous waste for which the performance test is planned, including date(s), duration, quantity of hazardous waste to be burned, and other relevant factors;

(vii) A detailed test protocol, including, for each hazardous waste identified, the ranges of hazardous waste feed rate for each feed system, and, as appropriate, the feed rates of other fuels and feedstocks, and any other relevant parameters that may affect the ability of the HWC to meet the D/F emission standard;

(viii) A description of, and planned operating conditions for, any emission control equipment that will be used;

(ix) Procedures for rapidly stopping the hazardous waste feed and controlling emissions in the event of an equipment malfunction; and

(x) Such other information as the Administrator reasonably finds necessary to determine whether to approve the confirmatory test plan.

(g) Operating conditions during testing. You must comply with the provisions of § 63.7(e). Conducting performance testing under operating conditions representative of the extreme range of normal conditions is consistent with the requirement of § 63.7(e)(1) to conduct performance testing under representative operating conditions.

#### (1) Comprehensive performance testing

(i) Operations during testing. For the following parameters, you must operate the combustor during the performance test under normal conditions (or conditions that will result in higher than normal emissions):

(A) Chlorine feed rate. You must feed normal (or higher) levels of chlorine during the D/F performance test;

(B) Ash feed rate. For hazardous waste incinerators, you must conduct the following tests when feeding normal (or higher) levels of ash: The SVM and LVM performance tests; and the D/F and Hg performance tests if activated carbon injection or a carbon bed is used; and

(C) Cleaning cycle of the PM control device. You must conduct the following tests when the PM control device undergoes its normal (or more frequent) cleaning cycle: The PM, SVM, and LVM performance tests; and the D/F and Hg performance tests if activated carbon injection or a carbon bed is used.

(ii) Modes of operation. Given that you must establish limits for the applicable operating parameters specified in § 63.1209 based on operations during the CPT, you may conduct testing under two or more operating modes to provide operating flexibility.

(iii) Steady-state conditions.

(A) Prior to obtaining performance test data, you must operate under performance test conditions until you reach steady-state operations with respect to emissions of pollutants you must measure during the performance test and operating parameters under § 63.1209 for which you must establish limits. During system conditioning, you must ensure that each operating parameter for which you must establish a limit is held at the level planned for the performance test. You must include documentation in the performance test plan under paragraph (f) of this section justifying the duration of system conditioning.

(B) If you own or operate a hazardous waste cement kiln that recycles collected PM (i.e., cement kiln dust) into the kiln, you must sample and analyze the recycled PM prior to obtaining performance test data for levels of selected metals that must be measured during performance testing to document that the system has reached steady-state conditions (i.e., that metals levels have stabilized). You must document the rationale for selecting metals that are indicative of system equilibrium and include the information in the performance test plan under paragraph (f) of this section. To determine system equilibrium, you must sample and analyze the recycled PM hourly for each selected metal, unless you submit in the performance test plan a justification for reduced sampling and analysis and the Administrator approves in writing a reduced sampling and analysis frequency.

(2) Confirmatory performance testing. You must conduct confirmatory performance testing for D/F under normal operating conditions for the following parameters:

(i) CO (or hydrocarbon) CEMS emissions levels must be within the range of the average value to the maximum value allowed, except as provided by paragraph (g)(2)(iv) of this section. The average value is defined as the sum of the hourly rolling average values recorded (each minute) over the previous 12 months, divided by the number of rolling averages recorded during that time. The average value must not include calibration data, startup data, shutdown data, malfunction data, and data obtained when not burning hazardous waste;

(ii) Each operating limit (specified in § 63.1209) established to maintain compliance with the D/F emission standard must be held within the range of the average value over the previous 12 months and the maximum or minimum, as appropriate, that is allowed, except as provided by paragraph (g)(2)(iv) of this section. The average value is defined as the sum of the rolling average values recorded over the previous 12 months, divided by the number of rolling averages recorded during that time. The average value must not include calibration data, startup data, shutdown data, malfunction data, and data obtained when not burning hazardous waste;

(iii) You must feed chlorine at normal feed rates or greater; and

(iv) If the combustor is equipped with carbon injection or carbon bed, normal cleaning cycle of the PM control device.

(v) The Administrator may approve an alternative range to that required by paragraphs (g)(2)(i) and (ii) of this section if you document in the confirmatory performance test plan that it may be problematic to maintain the required range during the test. In addition, when making the finding of compliance, the Administrator may consider test conditions outside of the range specified in the test plan based on a finding that you could not reasonably maintain the range specified in the test plan and considering factors including whether the time duration and level of the parameter when operations were out of the specified range were such that operations during the confirmatory test are determined to be reasonably representative of normal operations. In addition, the Administrator will consider the proximity of the emission test results to the standard.

(h) Operating conditions during subsequent testing.

(1) Current OPLs established under § 63.1209 are waived during subsequent comprehensive performance testing.

(2) Current OPLs are also waived during pretesting prior to comprehensive performance testing for an aggregate time not to exceed 720 hours of operation (renewable at the discretion of the Administrator) under an approved test plan or if the source records the results of the pretesting. Pretesting means:

(i) Operations when stack emissions testing for D/F, Hg, SVMs, LVMS, PM, or HCl/Cl<sub>2</sub> is being performed; and

(ii) Operations to reach steady-state operating conditions prior to stack emissions testing under paragraph (g)(1)(iii) of this section.

(i) Time extension for subsequent performance tests. After the initial CPT, you may request up to a 1-year time extension for conducting a comprehensive or confirmatory performance test to consolidate performance testing with other state or federally required emission testing, or for other reasons deemed acceptable by the Administrator. If the Administrator grants a time extension for a CPT, the deadlines for commencing the next comprehensive and confirmatory tests are based on the date that the subject CPT commences.

(1) You must submit in writing to the Administrator any request under this paragraph for a time extension for conducting a performance test.

(2) You must include in the request for an extension for conducting a performance test the following:

(i) A description of the reasons for requesting the time extension;

(ii) The date by which you will commence performance testing.

(3) The Administrator will notify you in writing of approval or intention to deny approval of your request for an extension for conducting a performance test within 30 calendar days after receipt of sufficient information to evaluate your request. The 30-day approval or denial period will begin after you have been notified in writing that your application is complete. The Administrator will notify you in writing whether the application contains sufficient information to make a determination within 30 calendar days after receipt of the original application and within 30 calendar days after receipt of any supplementary information that you submit.

(4) When notifying you that your application is not complete, the Administrator will specify the information needed to complete the application. The Administrator will also provide notice of opportunity for you to present, in writing, within 30 calendar days after notification of the incomplete application, additional information or arguments to the Administrator to enable further action on the application.

(5) Before denying any request for an extension for performance testing, the Administrator will notify you in writing of the Administrator's intention to issue the denial, together with:

(i) Notice of the information and findings on which the intended denial is based; and

(ii) Notice of opportunity for you to present in writing, within 15 calendar days after notification of the intended denial, additional

information or arguments to the Administrator before further action on the request.

(6) The Administrator's final determination to deny any request for an extension will be in writing and will set forth specific grounds upon which the denial is based. The final determination will be made within 30 calendar days after the presentation of additional information or argument (if the application is complete), or within 30 calendar days after the final date specified for the presentation if no presentation is made.

(j) NOC

(1) CPT.

(i) Except as provided by paragraphs (j)(4) and (j)(5) of this section, within 90 days of completion of a CPT, you must postmark a NOC documenting compliance with the emission standards and CMS requirements, and identifying OPLs under § 63.1209.

(ii) Upon postmark of the NOC, you must comply with all operating requirements specified in the NOC in lieu of the limits specified in the DOC required under § 63.1211(c).

(2) Confirmatory performance test. Except as provided by paragraph (j)(4) of this section, within 90 days of completion of a confirmatory performance test, you must postmark a NOC documenting compliance or noncompliance with the applicable D/F emission standard.

(3) See §§ 63.7(g), 63.9(h), and 63.1210(d) for additional requirements pertaining to the NOC (e.g., you must include results of performance tests in the NOC).

(4) Time extension. You may submit a written request to the Administrator for a time extension documenting that, for reasons beyond your control, you may not be able to meet the 90-day deadline for submitting the NOC after completion of testing. The Administrator will determine whether a time extension is warranted.

(5) Early compliance. If you conduct the initial CPT prior to the compliance date, you must postmark the NOC within 90 days of completion of the performance test or by the compliance date, whichever is later.

(k) Failure to submit a timely NOC.

(1) If you fail to postmark a NOC by the specified date, you must cease hazardous waste burning immediately.

(2) Prior to submitting a revised NOC as provided by paragraph (k)(3) of this section, you may burn hazardous waste only for the purpose of pretesting or comprehensive performance testing and only for a maximum of 720 hours (renewable at the discretion of the Administrator).

(3) You must submit to the Administrator a NOC subsequent to a new CPT before resuming hazardous waste burning.

(1) Failure of performance test

(1) CPT. The provisions of this paragraph do not apply to the initial CPT if you conduct the test prior to your compliance date.

(i) If you determine (based on CEM recordings, results of analyses of stack samples, or results of CMS performance evaluations) that you have exceeded any emission standard during a CPT for a mode of operation, you must cease hazardous waste burning immediately under that mode of operation. You must make this determination within 90 days following completion of the performance test.

(ii) If you have failed to demonstrate compliance with the emission standards for any mode of operation:

(A) Prior to submitting a revised NOC as provided by paragraph (1)(1)(ii)(C) of this section, you may burn hazardous waste only for the purpose of pretesting or comprehensive performance testing under revised operating conditions, and only for a maximum of 720 hours (renewable at the discretion of the Administrator), except as provided by paragraph (1)(3) of this section;

(B) You must conduct a CPT under revised operating conditions following the requirements for performance testing of this section; and

(C) You must submit to the Administrator a NOC subsequent to the new CPT.

(2) Confirmatory performance test. If you determine (based on CEM recordings, results of analyses of stack samples, or results of CMS performance evaluations) that you have failed the D/F emission standard during a confirmatory performance test, you must cease burning hazardous waste immediately. You must make this determination within 90 days following completion of the performance test. To burn hazardous waste in the future:

(i) You must submit to the Administrator for review and approval a test plan to conduct a CPT to identify revised limits on the applicable D/F operating parameters specified in § 63.1209(k);

(ii) You must submit to the Administrator a NOC with the D/F emission standard under the provisions of paragraphs (j) and (k) of this section and this paragraph (1). You must include in the NOC the revised limits on the applicable D/F operating parameters specified in § 63.1209(k); and

(iii) Until the NOC is submitted, you must not burn hazardous waste except for purposes of pretesting or confirmatory performance

testing, and for a maximum of 720 hours (renewable at the discretion of the Administrator), except as provided by paragraph (1)(3) of this section.

(3) You may petition the Administrator to obtain written approval to burn hazardous waste in the interim prior to submitting a NOC for purposes other than testing or pretesting. You must specify operating requirements, including limits on operating parameters, that you determine will ensure compliance with the emission standards of this subpart based on available information including data from the failed performance test. The Administrator will review, modify as necessary, and approve if warranted the interim operating requirements. An approval of interim operating requirements will include a schedule for submitting a NOC.

(m) Waiver of performance test.

(1) The waiver provision of this paragraph applies in addition to the provisions of § 63.7(h).

(2) You are not required to conduct performance tests to document compliance with the Hg, SVMs, LVMs, or HCl/Cl<sub>2</sub> emission standards under the conditions specified in this paragraph (m)(2). You are deemed to be in compliance with an emission standard if the 12-hour rolling average MTEC does not exceed the emission standard:

(i) Determine the feed rate of Hg, SVMs, LVMs, or total chlorine and chloride from all feedstreams;

(ii) Determine the stack gas flow rate; and

(iii) Calculate a MTEC for each standard assuming all Hg, SVMs, LVMs, or total chlorine (organic and inorganic) from all feedstreams is emitted;

(3) To document compliance with this provision, you must:

(i) Monitor and record the feed rate of Hg, SVMs, LVMs, and total chlorine and chloride from all feedstreams according to § 63.1209(c);

(ii) Monitor with a CMS and record in the operating record the gas flow rate (either directly or by monitoring a surrogate parameter that you have correlated to gas flow rate);

(iii) Continuously calculate and record in the operating record the MTEC under the procedures of paragraph (m)(2) of this section; and

(iv) Interlock the MTEC calculated in paragraph (m)(2)(iii) of this section to the AWCFO system to stop hazardous waste burning when the MTEC exceeds the emission standard.

(4) In lieu of the requirement in paragraphs (m)(3)(iii) and (iv) of this section, you may:



(i) Identify in the NOC a minimum gas flow rate limit and a maximum feed rate limit of Hg, SVMs, LVMS, and/or total chlorine and chloride from all feedstreams that ensures the MTEC as calculated in paragraph (m)(2)(iii) of this section is below the applicable emission standard; and

(ii) Interlock the minimum gas flow rate limit and maximum feed rate limit of paragraph (m)(4)(i) of this section to the AWFCO system to stop hazardous waste burning when the gas flow rate or Hg, SVMs, LVMS, and/or total chlorine and chloride feed rate exceeds the limits of paragraph (m)(4)(i) of this section.

(5) When you determine the feed rate of Hg, SVMs, LVMS, or total chlorine and chloride for purposes of this provision, except as provided by paragraph (m)(6) of this section, you must assume that the analyte is present at the full detection limit when the feedstream analysis determines that the analyte is not detected in the feedstream.

(6) Owners and operators of hazardous waste burning cement kilns and LWAKs may assume that Hg is present in raw material at half the detection limit when the raw material feedstream analysis determines that Hg is not detected.

(7) You must state in the site-specific test plan that you submit for review and approval under paragraph (e) of this section that you intend to comply with the provisions of this paragraph. You must include in the test plan documentation that any surrogate that is proposed for gas flow rate adequately correlates with the gas flow rate.

[64 FR 53038, Sept. 30, 1999, as amended at 65 FR 42299, July 10, 2000; 65 FR 67271, Nov. 9, 2000; 66 FR 35106, July 3, 2001; 66 FR 63318, Dec. 6, 2001; 67 FR 6814, Feb. 13, 2002; 67 FR 6990, Feb. 14, 2002; 67 FR 77691, Dec. 19, 2002; 70 FR 59546, Oct. 12, 2005]

## **§ 63.1208 What are the test methods?**

(a) [Reserved]

(b) Test methods. You must use the following test methods to determine compliance with the emissions standards of this subpart:

(1) Dioxins and furans.

(i) To determine compliance with the emission standard for dioxins and furans, you must use:

(A) Method 0023A, Sampling Method for Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans emissions from

Stationary Sources, EPA Publication SW-846 (incorporated by reference – see § 63.14); or

(B) Method 23, provided in appendix A, part 60 of this chapter, after approval by the Administrator.

(1) You may request approval to use Method 23 in the performance test plan required under § 63.1207(e) (i) and (ii).

(2) In determining whether to grant approval to use Method 23, the Administrator may consider factors including whether D/F were detected at levels substantially below the emission standard in previous testing, and whether previous Method 0023 analyses detected low levels of D/F in the front half of the sampling train.

(3) Sources that emit carbonaceous PM, such as coal-fired boilers, and sources equipped with activated carbon injection, will be deemed not suitable for use of Method 23 unless you document that there would not be a significant improvement in quality assurance with Method 0023A.

(ii) You must sample for a minimum of three hours, and you must collect a minimum sample volume of 2.5 dscm;

(iii) You may assume that nondetects are present at zero concentration.

(2) Hg. You must use Method 29, provided in appendix A, part 60 of this chapter, to demonstrate compliance with emission standard for Hg.

(3) Cd and Pb. You must use Method 29, provided in appendix A, part 60 of this chapter, to determine compliance with the emission standard for Cd and Pb (combined).

(4) As, Be, and Cr. You must use Method 29, provided in appendix A, part 60 of this chapter, to determine compliance with the emission standard for As, Be, and Cr (combined).

(5) HCl/Cl<sub>2</sub>

(i) Compliance with MACT standards. To determine compliance with the emission standard for HCl/Cl<sub>2</sub>, you must use:

(A) Method 26/26A as provided in appendix A, part 60 of this chapter; or

(B) Methods 320 or 321 as provided in appendix A, part 63 of this chapter, or

(C) ASTM D 6735-01, Standard Test Method for Measurement of Gaseous Chlorides and Fluorides from Mineral Calcining Exhaust Sources—Impinger Method to measure emissions of HCl, and Method 26/26A to measure emissions of chlorine gas, provided that you follow the

provisions in paragraphs (b) (5) (C) (1) through (6) of this section. ASTM D 6735-01 is available for purchase from at least one of the following addresses: ASTM, 100 Barr Harbor Drive, Post Office Box C700, West Conshohocken, PA 19428-2959; or ProQuest, 300 North Zeeb Road, Ann Arbor, MI 48106.

(1) A test must include three or more runs in which a pair of samples is obtained simultaneously for each run according to section 11.2.6 of ASTM Method D6735-01.

(2) You must calculate the test run standard deviation of each set of paired samples to quantify data precision, according to Equation 1 of this section:

$$RSD_a = 100 * |(C1_a - C2_a) / (C1_a + C2_a)| \quad (\text{absolute value})$$

Equation 1

Where:

$RSD_a$  = The test run relative standard deviation of sample pair a, percent.

$C1_a$  and  $C2_a$  = The HCl concentrations, mg/dscm, from the paired samples.

(3) You must calculate the test average relative standard deviation according to Equation 2 of this section:

$$RSD_{TA} = \frac{\sum_{n=1}^p RSD_a}{p}$$

Equation 2

Where:

$RSD_{TA}$  = The test average relative standard deviation, percent.

$RSD_a$  = The test run relative standard deviation for sample pair a.

$p$  = The number of test runs, \* 3

(4) If  $RSD_{TA}$  is greater than 20 percent, the data are invalid and the test must be repeated.

(5) The post-test analyte spike procedure of section 11.2.7 of ASTM Method D6735-01 is conducted, and the percent recovery is calculated according to section 12.6 of ASTM Method D6735-01.

(6) If the percent recovery is between 70 percent and 130 percent, inclusive, the test is valid. If the percent recovery is outside of this range, the data are considered invalid, and the test must be repeated.

(ii) Compliance with risk-based limits under § 63.1215. To demonstrate compliance with emission limits established under § 63.1215, you must use Method 26/26A as provided in appendix A, part 60 of this chapter, Method 320 as provided in appendix A, part 63 of this chapter, Method 321 as provided in appendix A, part 63 of this chapter, or ASTM D 6735-01, Standard Test Method for Measurement of Gaseous Chlorides and Fluorides from Mineral Calcining Exhaust Sources—Impinger Method (following the provisions of paragraphs (b) (5) (C) (1) through (6) of this section), except:

(A) For cement kilns and sources equipped with a dry acid gas scrubber, you must use Methods 320 or 321 as provided in appendix A, part 63 of this chapter, or ASTM D6735-01 to measure HCl, and the back-half, caustic impingers of Method 26/26A as provided in appendix A, part 60 of this chapter to measure chlorine gas; and

(B) For incinerators, boilers, and LWAKs, you must use Methods 320 or 321 as provided in appendix A, part 63 of this chapter, or ASTM D 6735-01 to measure HCl, and Method 26/26A as provided in appendix A, part 60 of this chapter to measure total chlorine, and calculate chlorine gas by difference if:

(1) The bromine/chlorine ratio in feedstreams is greater than 5 percent; or

(2) The sulfur/chlorine ratio in feedstreams is greater than 50 percent.

(6) PM. You must use Methods 5 or 5I, provided in appendix A, part 60 of this chapter, to demonstrate compliance with the emission standard for PM.

(7) Other Test Methods. You may use applicable test methods in EPA Publication SW-846, as incorporated by reference in paragraph (a) of this section, as necessary to demonstrate compliance with requirements of this subpart, except as otherwise specified in paragraphs (b) (2)–(b) (6) of this section.

(8) Feedstream analytical methods. You may use any reliable analytical method to determine feedstream concentrations of metals, chlorine, and other constituents. It is your responsibility to ensure that the sampling and analysis procedures are unbiased, precise, and that the results are representative of the feedstream.

(9) Opacity. If you determine compliance with the opacity standard under the monitoring requirements of §§ 63.1209(a) (1) (iv) and (a) (1) (v), you must use Method 9, provided in appendix A, part 60 of this chapter.

[64 FR 53038, Sept. 30, 1999, as amended at 69 FR 18803, Apr. 9, 2004; 70 FR 59547, Oct. 12, 2005]

**§ 63.1209 What are the monitoring requirements?**

(a) CEMs and COMs.

(1)

(i) You must use either a CO or hydrocarbon CEMS to demonstrate and monitor compliance with the CO and hydrocarbon standard under this subpart. You must also use an oxygen CEMS to continuously correct the CO or hydrocarbon level to 7% O<sub>2</sub>.

(ii)

(A) Cement kilns under § 63.1204 – Except as provided by paragraphs (a)(1)(iv) and (a)(1)(v) of the section, you must use a COMS to demonstrate and monitor compliance with the opacity standard under §§ 63.1204(a)(7) and (b)(7) at each point where emissions are vented from these affected sources including the bypass stack of a preheater or preheater/precalciner kiln with dual stacks.

(B) Cement kilns under § 63.1220 – Except as provided by paragraphs (a)(1)(iv) and (a)(1)(v) of the section and unless your source is equipped with a bag leak detection system under § 63.1206(c)(8) or a PM detection system under § 63.1206(c)(9), you must use a COMS to demonstrate and monitor compliance with the opacity standard under §§ 63.1220(a)(7) and (b)(7) at each point where emissions are vented from these affected sources including the bypass stack of a preheater or preheater/precalciner kiln with dual stacks.

(C) You must maintain and operate each COMS in accordance with the requirements of § 63.8(c) except for the requirements under § 63.8(c)(3). The requirements of § 63.1211(c) shall be complied with instead of § 63.8(c)(3); and

(D) Compliance is based on a 6-minute block average.

(iii) You must install, calibrate, maintain, and operate a PM CEMS to demonstrate and monitor compliance with the PM standards under this subpart. However, compliance with the requirements in this section to install, calibrate, maintain and operate the PM CEMS is not required until such time that the Agency promulgates all PSS and operational requirements applicable to PM CEMS.

(iv) If you operate a cement kiln subject to the provisions of this subpart and use a fabric filter with multiple stacks or an electrostatic precipitator with multiple stacks, you may, in lieu of installing the COMS required by paragraph (a)(1)(ii) of this section, comply with the opacity standard in accordance with the procedures of Method 9 to part 60 of this chapter:

(A) You must conduct the Method 9 test while the affected source is operating at the highest load or capacity level reasonably expected to occur within the day;

(B) The duration of the Method 9 test shall be at least 30 minutes each day;

(C) You must use the Method 9 procedures to monitor and record the average opacity for each 6-minute block period during the test; and

(D) To remain in compliance, all 6-minute block averages must not exceed the opacity standard.

(v) If you operate a cement kiln subject to the provisions of this subpart and use a PM control device that exhausts through a monovent, or if the use of a COMS in accordance with the installation specification of PS 1 of appendix B to part 60 of this chapter is not feasible, you may, in lieu of installing the COMS required by paragraph (a)(1)(ii) of this section, comply with the opacity standard in accordance with the procedures of Method 9 to part 60 of this chapter:

(A) You must conduct the Method 9 test while the affected source is operating at the highest load or capacity level reasonably expected to occur within the day;

(B) The duration of the Method 9 test shall be at least 30 minutes each day;

(C) You must use the Method 9 procedures to monitor and record the average opacity for each 6-minute block period during the test; and

(D) To remain in compliance, all 6-minute block averages must not exceed the opacity standard.

(2) Performance Specifications. You must install, calibrate, maintain, and continuously operate the CEMS and COMS in compliance with the quality assurance procedures provided in the appendix to this subpart and PSs 1 (opacity), 4B (CO and oxygen), and 8A (hydrocarbons) in appendix B, part 60 of this chapter.

(3) CO readings exceeding the span.

(i) Except as provided by paragraph (a)(3)(ii) of this section, if a CO CEMS detects a response that results in a 1-minute average at or above the 3,000 ppmv span level required by PS 4B in appendix B, part 60 of this chapter, the 1-minute average must be recorded as 10,000 ppmv. The 1-minute 10,000 ppmv value must be used for calculating the hourly rolling average CO level.

(ii) CO CEMS that use a span value of 10,000 ppmv when 1-minute CO levels are equal to or exceed 3,000 ppmv are not subject to paragraph (a)(3)(i) of this section. CO CEMS that use a span value of 10,000 are subject to the same CEMS performance and equipment

specifications when operating in the range of 3,000 ppmv to 10,000 ppmv that are provided by PS 4B for other CO CEMS, except:

(A) Calibration drift must be less than 300 ppmv; and

(B) Calibration error must be less than 500 ppmv.

(4) Hydrocarbon readings exceeding the span.

(i) Except as provided by paragraph (a)(4)(ii) of this section, if a hydrocarbon CEMS detects a response that results in a 1-minute average at or above the 100 ppmv span level required by PS 8A in appendix B, part 60 of this chapter, the 1-minute average must be recorded as 500 ppmv. The 1-minute 500 ppmv value must be used for calculating the hourly rolling average HC level.

(ii) Hydrocarbon CEMS that use a span value of 500 ppmv when 1-minute hydrocarbon levels are equal to or exceed 100 ppmv are not subject to paragraph (a)(4)(i) of this section. Hydrocarbon CEMS that use a span value of 500 ppmv are subject to the same CEMS performance and equipment specifications when operating in the range of 100 ppmv to 500 ppmv that are provided by PS 8A for other hydrocarbon CEMS, except:

(A) The zero and high-level calibration gas must have a hydrocarbon level of between 0 and 100 ppmv, and between 250 and 450 ppmv, respectively;

(B) The strip chart recorder, computer, or digital recorder must be capable of recording all readings within the CEM measurement range and must have a resolution of 2.5 ppmv;

(C) The CEMS calibration must not differ by more than  $\pm 15$  ppmv after each 24-hour period of the seven day test at both zero and high levels;

(D) The calibration error must be no greater than 25 ppmv; and

(E) The zero level, mid-level, and high level calibration gas used to determine calibration error must have a hydrocarbon level of 0-200 ppmv, 150-200 ppmv, and 350-400 ppmv, respectively.

(5) Petitions to use CEMS for other standards. You may petition the Administrator to use CEMS for compliance monitoring for PM, Hg, SVMs, LVMs, and HCl/Cl<sub>2</sub> under § 63.8(f) in lieu of compliance with the corresponding OPLs under this section.

(6) Calculation of rolling averages

(i) Calculation of rolling averages initially. The CO or hydrocarbon CEMS must begin recording 1-minute average values by 12:01 a.m. and hourly rolling average values by 1:01 a.m., when sixty

1-minute values will be available for calculating the initial hourly rolling average for those sources that come into compliance on the regulatory compliance date. Sources that elect to come into compliance before the regulatory compliance date must begin recording 1-minute and hourly rolling average values within 60 seconds and 60 minutes (when 60 1-minute values will be available for calculating the initial hourly rolling average), respectively, from the time at which compliance begins.

(ii) Calculation of rolling averages upon intermittent operations. You must ignore periods of time when 1-minute values are not available for calculating the hourly rolling average. When 1-minute values become available again, the first 1-minute value is added to the previous 59 values to calculate the hourly rolling average.

(iii) Calculation of rolling averages when the hazardous waste feed is cutoff.

(A) Except as provided by paragraph (a)(6)(iii)(B) of this section, you must continue monitoring CO and hydrocarbons when the hazardous waste feed is cutoff if the source is operating. You must not resume feeding hazardous waste if the emission levels exceed the standard.

(B) You are not subject to the CEMS requirements of this subpart during periods of time you meet the requirements of § 63.1206(b)(1)(ii) (compliance with emissions standards for nonhazardous waste burning sources when you are not burning hazardous waste).

(7) OPLs for hydrocarbons. If you elect to comply with the CO and hydrocarbon emission standard by continuously monitoring CO with a CEMS, you must demonstrate that hydrocarbon emissions during the CPT do not exceed the hydrocarbon emissions standard. In addition, the limits you establish on the DRE operating parameters required under paragraph (j) of this section also ensure that you maintain compliance with the hydrocarbon emission standard. If you do not conduct the hydrocarbon demonstration and DRE tests concurrently, you must establish separate OPLs under paragraph (j) of this section based on each test and the more restrictive of the OPLs applies.

(b) Other CMSs.

(1) You must use CMS (e.g., thermocouples, pressure transducers, flow meters) to document compliance with the applicable OPLs under this section.

(2) Except as specified in paragraphs (b)(2)(i) and (ii) of this section, you must install and operate CMSs other than CEMS in conformance with § 63.8(c)(3) that requires you, at a minimum, to comply with the manufacturer's written specifications or



recommendations for installation, operation, and calibration of the system:

(i) Calibration of thermocouples and pyrometers. The calibration of thermocouples must be verified at a frequency and in a manner consistent with manufacturer specifications, but no less frequent than once per year. You must operate and maintain optical pyrometers in accordance with manufacturer specifications unless otherwise approved by the Administrator. You must calibrate optical pyrometers in accordance with the frequency and procedures recommended by the manufacturer, but no less frequent than once per year, unless otherwise approved by the Administrator. And,

(ii) Accuracy and calibration of weight measurement devices for activated carbon injection systems. If you operate a carbon injection system, the accuracy of the weight measurement device must be  $\pm 1$  percent of the weight being measured. The calibration of the device must be verified at least once each calendar quarter at a frequency of approximately 120 days.

(3) CMS must sample the regulated parameter without interruption, and evaluate the detector response at least once each 15 seconds, and compute and record the average values at least every 60 seconds.

(4) The span of the non-CEMS CMS detector must not be exceeded. You must interlock the span limits into the AWFCO system required by § 63.1206(c)(3).

(5) Calculation of rolling averages

(i) Calculation of rolling averages initially. CMSs must begin recording 1-minute average values by 12:01 a.m., hourly rolling average values by 1:01 a.m. (e.g., when sixty 1-minute values will be available for calculating the initial hourly rolling average), and 12-hour rolling averages by 12:01 p.m. (e.g., when 720 1-minute averages are available to calculate a 12-hour rolling average), for those sources that come into compliance on the regulatory compliance date. Sources that elect to come into compliance before the regulatory compliance date must begin recording 1-minute, hourly rolling average, and 12-hour rolling average values within 60 seconds, 60 minutes (when sixty 1-minute values will be available for calculating the initial hourly rolling average), and 720 minutes (when 720 1-minute values will be available for calculating the initial 12-hour hourly rolling average) respectively, from the time at which compliance begins.

(ii) Calculation of rolling averages upon intermittent operations. You must ignore periods of time when 1-minute values are not available for calculating rolling averages. When 1-minute values become available again, the first 1-minute value is added to the previous 1-minute values to calculate rolling averages.

(iii) Calculation of rolling averages when the hazardous waste feed is cutoff.

(A) Except as provided by paragraph (b) (5) (iii) (B) of this section, you must continue monitoring OPLs with a CMS when the hazardous waste feed is cutoff if the source is operating. You must not resume feeding hazardous waste if an operating parameter exceeds its limit.

(B) You are not subject to the CMS requirements of this subpart during periods of time you meet the requirements of § 63.1206(b) (1) (ii) (compliance with emissions standards for nonhazardous waste burning sources when you are not burning hazardous waste).

(c) Analysis of feedstreams

(1) General. Prior to feeding the material, you must obtain an analysis of each feedstream that is sufficient to document compliance with the applicable feed rate limits provided by this section.

(2) Feedstream analysis plan. You must develop and implement a feedstream analysis plan and record it in the operating record. The plan must specify at a minimum:

(i) The parameters for which you will analyze each feedstream to ensure compliance with the OPLs of this section;

(ii) Whether you will obtain the analysis by performing sampling and analysis or by other methods, such as using analytical information obtained from others or using other published or documented data or information;

(iii) How you will use the analysis to document compliance with applicable feed rate limits (e.g., if you blend hazardous wastes and obtain analyses of the wastes prior to blending but not of the blended, as-fired, waste, the plan must describe how you will determine the pertinent parameters of the blended waste);

(iv) The test methods which you will use to obtain the analyses;

(v) The sampling method which you will use to obtain a representative sample of each feedstream to be analyzed using sampling methods described in appendix IX, part 266 of this chapter, or an equivalent method; and

(vi) The frequency with which you will review or repeat the initial analysis of the feedstream to ensure that the analysis is accurate and up to date.

(3) Review and approval of analysis plan. You must submit the feedstream analysis plan to the Administrator for review and approval, if requested.

(4) Compliance with feed rate limits. To comply with the applicable feed rate limits of this section, you must monitor and record feed rates as follows:

(i) Determine and record the value of the parameter for each feedstream by sampling and analysis or other method;

(ii) Determine and record the mass or volume flow rate of each feedstream by a CMS. If you determine flow rate of a feedstream by volume, you must determine and record the density of the feedstream by sampling and analysis (unless you report the constituent concentration in units of weight per unit volume (e.g., mg/l)); and

(iii) Calculate and record the mass feed rate of the parameter per unit time.

(5) Waiver of monitoring of constituents in certain feedstreams. You are not required to monitor levels of metals or chlorine in the following feedstreams to document compliance with the feed rate limits under this section provided that you document in the CPT plan the expected levels of the constituent in the feedstream and account for those assumed feed rate levels in documenting compliance with feed rate limits: natural gas, process air, and feedstreams from vapor recovery systems.

(d) Performance evaluations.

(1) The requirements of §§ 63.8(d) (Quality control program) and (e) (Performance evaluation of CMSs) apply, except that you must conduct performance evaluations of components of the CMS under the frequency and procedures (for example, submittal of performance evaluation test plan for review and approval) applicable to performance tests as provided by § 63.1207.

(2) You must comply with the quality assurance procedures for CEMS prescribed in the appendix to this subpart.

(e) Conduct of monitoring. The provisions of § 63.8(b) apply.

(f) Operation and maintenance of CMSs. The provisions of § 63.8(c) apply except:

(1) Section 63.8(c)(3). The requirements of § 63.1211(c), that requires CMSs to be installed, calibrated, and operational on the compliance date, shall be complied with instead of § 63.8(c)(3);

(2) Section 63.8(c)(4)(ii). The PSs for CO, hydrocarbon, and oxygen CEMSs in subpart B, part 60 of this chapter that requires detectors to measure the sample concentration at least once every 15 seconds for calculating an average emission rate once every 60 seconds shall be complied with instead of § 63.8(c)(4)(ii); and

(3) Sections 63.8(c)(4)(i), (c)(5), and (c)(7)(i)(C) pertaining to COMS apply only to owners and operators of hazardous waste burning cement kilns.

(g) Alternative monitoring requirements other than CEMSs

(1) Requests to use alternatives to operating parameter monitoring requirements.

(i) You may submit an application to the Administrator under this paragraph for approval of alternative operating parameter monitoring requirements to document compliance with the emission standards of this subpart. For requests to use additional CEMS, however, you must use paragraph (a)(5) of this section and § 63.8(f). Alternative requests to operating parameter monitoring requirements that include unproven monitoring methods may not be made under this paragraph and must be made under § 63.8(f).

(ii) You may submit an application to waive an OPL specified in this section based on documentation that neither that OPL nor an alternative OPL is needed to ensure compliance with the emission standards of this subpart.

(iii) You must comply with the following procedures for applications submitted under paragraphs (g)(1)(i) and (ii) of this section:

(A) Timing of the application. You must submit the application to the Administrator not later than with the CPT plan.

(B) Content of the application. You must include in the application:

(1) Data or information justifying your request for an alternative monitoring requirement (or for a waiver of an OPL), such as the technical or economic infeasibility or the impracticality of using the required approach;

(2) A description of the proposed alternative monitoring requirement, including the operating parameter to be monitored, the monitoring approach/technique (e.g., type of detector, monitoring location), the averaging period for the limit, and how the limit is to be calculated; and

(3) Data or information documenting that the alternative monitoring requirement would provide equivalent or better assurance of compliance with the relevant emission standard, or that it is the monitoring requirement that best assures compliance with the standard and that is technically and economically practicable.

(C) Approval of request to use an alternative monitoring requirement or waive an OPL. The Administrator will notify you of approval or intention to deny approval of the request within 90 calendar days after receipt of the original request and within 60

calendar days after receipt of any supplementary information that you submit. The Administrator will not approve an alternative monitoring request unless the alternative monitoring requirement provides equivalent or better assurance of compliance with the relevant emission standard, or is the monitoring requirement that best assures compliance with the standard and that is technically and economically practicable. Before disapproving any request, the Administrator will notify you of the Administrator's intention to disapprove the request together with:

(1) Notice of the information and findings on which the intended disapproval is based; and

(2) Notice of opportunity for you to present additional information to the Administrator before final action on the request. At the time the Administrator notifies you of intention to disapprove the request, the Administrator will specify how much time you will have after being notified of the intended disapproval to submit the additional information.

(D) Responsibility of owners and operators. You are responsible for ensuring that you submit any supplementary and additional information supporting your application in a timely manner to enable the Administrator to consider your application during review of the CPT plan. Neither your submittal of an application, nor the Administrator's failure to approve or disapprove the application, relieves you of the responsibility to comply with the provisions of this subpart.

(iv) Dual Standards that incorporate the Interim Standards for HAP metals.

(A) SVMs and LVMs. You may petition the Administrator to waive a feed rate OPL under paragraph (n)(2) of this section for either the emission standards expressed in a thermal emissions format or the interim standards based on documentation that the feed rate OPL is not needed to ensure compliance with the relevant standard on a continuous basis.

(B) Hg. You may petition the Administrator to waive a feed rate OPL under paragraph (l)(1) of this section for either the feed concentration standard under §§ 63.1220(a)(2)(i) and (b)(2)(i) or the interim standards based on documentation that the feed rate OPL is not needed to ensure compliance with the relevant standard on a continuous basis.

(2) Administrator's discretion to specify additional or alternative requirements. The Administrator may determine on a case-by-case basis at any time (e.g., during review of the CPT plan, during compliance certification review) that you may need to limit additional or alternative operating parameters (e.g., opacity in addition to or in lieu of OPLs on the PM control device) or that alternative approaches

to establish limits on operating parameters may be necessary to document compliance with the emission standards of this subpart.

(h) Reduction of monitoring data. The provisions of § 63.8(g) apply.

(i) When an operating parameter is applicable to multiple standards. Paragraphs (j) through (p) of this section require you to establish limits on operating parameters based on comprehensive performance testing to ensure you maintain compliance with the emission standards of this subpart. For several parameters, you must establish a limit for the parameter to ensure compliance with more than one emission standard. An example is a limit on minimum combustion chamber temperature to ensure compliance with both the DRE standard of paragraph (j) of this section and the D/F standard of paragraph (k) of this section. If the performance tests for such standards are not performed simultaneously, the most stringent limit for a parameter derived from independent performance tests applies.

(j) DRE. To remain in compliance with the DRE standard, you must establish operating limits during the CPT (or during a previous DRE test under provisions of § 63.1206(b)(7)) for the following parameters, unless the limits are based on manufacturer specifications, and comply with those limits at all times that hazardous waste remains in the combustion chamber (i.e., the hazardous waste residence time has not transpired since the hazardous waste feed cutoff system was activated):

(1) Minimum combustion chamber temperature.

(i) You must measure the temperature of each combustion chamber at a location that best represents, as practicable, the bulk gas temperature in the combustion zone. You must document the temperature measurement location in the test plan you submit under § 63.1207(e);

(ii) You must establish a minimum hourly rolling average limit as the average of the test run averages;

(2) Maximum flue gas flow rate or production rate.

(i) As an indicator of gas residence time in the control device, you must establish and comply with a limit on the maximum flue gas flow rate, the maximum production rate, or another parameter that you document in the site-specific test plan as an appropriate surrogate for gas residence time, as the average of the maximum hourly rolling averages for each run.

(ii) You must comply with this limit on a hourly rolling average basis;

(3) Maximum hazardous waste feed rate.

(i) You must establish limits on the maximum pumpable and total (i.e., pumpable and nonpumpable) hazardous waste feed rate for each location where hazardous waste is fed.

(ii) You must establish the limits as the average of the maximum hourly rolling averages for each run.

(iii) You must comply with the feed rate limit(s) on a hourly rolling average basis;

(4) Operation of waste firing system. You must specify operating parameters and limits to ensure that good operation of each hazardous waste firing system is maintained.

(k) Dioxins and furans. You must comply with the dioxin and furans emission standard by establishing and complying with the following OPLs. You must base the limits on operations during the CPT, unless the limits are based on manufacturer specifications.

(1) Gas temperature at the inlet to a dry PM control device.

(i) For sources other than a LWAK, if the combustor is equipped with an electrostatic precipitator, baghouse (fabric filter), or other dry emissions control device where PM is suspended in contact with combustion gas, you must establish a limit on the maximum temperature of the gas at the inlet to the device on an hourly rolling average. You must establish the hourly rolling average limit as the average of the test run averages.

(ii) For hazardous waste burning LWAKs, you must establish a limit on the maximum temperature of the gas at the exit of the (last) combustion chamber (or exit of any waste heat recovery system) on an hourly rolling average. The limit must be established as the average of the test run averages;

(2) Minimum combustion chamber temperature.

(i) For sources other than cement kilns, you must measure the temperature of each combustion chamber at a location that best represents, as practicable, the bulk gas temperature in the combustion zone. You must document the temperature measurement location in the test plan you submit under §§ 63.1207(e) and (f);

(ii) You must establish a minimum hourly rolling average limit as the average of the test run averages.

(3) Maximum flue gas flow rate or production rate.

(i) As an indicator of gas residence time in the control device, you must establish and comply with a limit on the maximum flue gas flow rate, the maximum production rate, or another parameter that you document in the site-specific test plan as an appropriate surrogate

for gas residence time, as the average of the maximum hourly rolling averages for each run.

(ii) You must comply with this limit on a hourly rolling average basis;

(4) Maximum hazardous waste feed rate.

(i) You must establish limits on the maximum pumpable and total (pumpable and nonpumpable) hazardous waste feed rate for each location where waste is fed.

(ii) You must establish the limits as the average of the maximum hourly rolling averages for each run.

(iii) You must comply with the feed rate limit(s) on a hourly rolling average basis;

(5) PM operating limit. If your combustor is equipped with an activated carbon injection system, you must establish OPLs on the PM control device as specified by paragraph (m) (1) of this section;

(6) Activated carbon injection parameter limits. If your combustor is equipped with an activated carbon injection system:

(i) Carbon feed rate. You must establish a limit on minimum carbon injection rate on an hourly rolling average calculated as the average of the test run averages. If your carbon injection system injects carbon at more than one location, you must establish a carbon feed rate limit for each location.

(ii) Carrier fluid. You must establish a limit on minimum carrier fluid (gas or liquid) flow rate or pressure drop as an hourly rolling average based on the manufacturer's specifications. You must document the specifications in the test plan you submit under §§ 63.1207(e) and (f);

(iii) Carbon specification.

(A) You must specify and use the brand (i.e., manufacturer) and type of carbon used during the CPT until a subsequent CPT is conducted, unless you document in the site-specific performance test plan required under §§ 63.1207(e) and (f) key parameters that affect adsorption and establish limits on those parameters based on the carbon used in the performance test.

(B) You may substitute at any time a different brand or type of carbon provided that the replacement has equivalent or improved properties compared to the carbon used in the performance test and conforms to the key sorbent parameters you identify under paragraph (k) (6) (iii) (A) of this section. You must include in the operating record documentation that the substitute carbon will provide the same level of control as the original carbon.



(7) Carbon bed parameter limits. If your combustor is equipped with a carbon bed system:

(i) Monitoring bed life. You must:

(A) Monitor performance of the carbon bed consistent with manufacturer's specifications and recommendations to ensure the carbon bed (or bed segment for sources with multiple segments) has not reached the end of its useful life to minimize D/F and Hg emissions at least to the levels required by the emission standards;

(B) Document the monitoring procedures in the operation and maintenance plan;

(C) Record results of the performance monitoring in the operating record; and

(D) Replace the bed or bed segment before it has reached the end of its useful life to minimize D/F and Hg emissions at least to the levels required by the emission standards.

(ii) Carbon specification.

(A) You must specify and use the brand (i.e., manufacturer) and type of carbon used during the CPT until a subsequent CPT is conducted, unless you document in the site-specific performance test plan required under §§ 63.1207(e) and (f) key parameters that affect adsorption and establish limits on those parameters based on the carbon used in the performance test.

(B) You may substitute at any time a different brand or type of carbon provided that the replacement has equivalent or improved properties compared to the carbon used in the performance test. You must include in the operating record documentation that the substitute carbon will provide an equivalent or improved level of control as the original carbon.

(iii) Maximum temperature. You must measure the temperature of the carbon bed at either the bed inlet or exit and you must establish a maximum temperature limit on an hourly rolling average as the average of the test run averages.

(8) Catalytic oxidizer parameter limits. If your combustor is equipped with a catalytic oxidizer, you must establish limits on the following parameters:

(i) Minimum flue gas temperature at the entrance of the catalyst. You must establish a limit on minimum flue gas temperature at the entrance of the catalyst on an hourly rolling average as the average of the test run averages.

(ii) Maximum time in-use. You must replace a catalytic oxidizer with a new catalytic oxidizer when it has reached the maximum service time specified by the manufacturer.

(iii) Catalyst replacement specifications. When you replace a catalyst with a new one, the new catalyst must be equivalent to or better than the one used during the previous comprehensive test, as measured by:

(A) Catalytic metal loading for each metal;

(B) Space time, expressed in the units  $s^{-1}$ , the maximum rated volumetric flow of combustion gas through the catalyst divided by the volume of the catalyst; and

(C) Substrate construction, including materials of construction, washcoat type, and pore density.

(iv) Maximum flue gas temperature. You must establish a maximum flue gas temperature limit at the entrance of the catalyst as an hourly rolling average, based on manufacturer's specifications.

(9) Inhibitor feed rate parameter limits. If you feed a D/F inhibitor into the combustion system, you must establish limits for the following parameters:

(i) Minimum inhibitor feed rate. You must establish a limit on minimum inhibitor feed rate on an hourly rolling average as the average of the test run averages.

(ii) Inhibitor specifications.

(A) You must specify and use the brand (i.e., manufacturer) and type of inhibitor used during the CPT until a subsequent CPT is conducted, unless you document in the site-specific performance test plan required under §§ 63.1207(e) and (f) key parameters that affect the effectiveness of the inhibitor and establish limits on those parameters based on the inhibitor used in the performance test.

(B) You may substitute at any time a different brand or type of inhibitor provided that the replacement has equivalent or improved properties compared to the inhibitor used in the performance test and conforms to the key parameters you identify under paragraph (k)(9)(ii)(A) of this section. You must include in the operating record documentation that the substitute inhibitor will provide the same level of control as the original inhibitor.

(1) Hg. You must comply with the Hg emission standard by establishing and complying with the following OPLs. You must base the limits on operations during the CPT, unless the limits are based on manufacturer specifications.

(1) Feed rate of Hg.

(i) For incinerators and SFBs, when complying with the Hg emission standards under §§ 63.1203, 63.1216 and 63.1219, you must establish a 12-hour rolling average limit for the total feed rate of Hg in all feedstreams as the average of the test run averages.

(ii) For LFBs, when complying with the Hg emission standards of § 63.1217, you must establish a rolling average limit for the Hg feed rate as follows on an averaging period not to exceed an annual rolling average:

(A) You must calculate a Hg SRE for each test run and calculate the average SRE of the test run averages. If emissions exceed the Hg emission standard during the CPT, it is not a violation because the averaging period for the Hg emission standard is (not-to-exceed) 1 year and compliance is based on compliance with the Hg feed rate limit with an averaging period not-to-exceed 1 year.

(B) If you burn hazardous waste with a heating value of 10,000 Btu/lb or greater, you must calculate the Hg feed rate limit as follows:

(1) The Hg feed rate limit is the emission standard divided by  $[1 - \text{SRE}]$ .

(2) The Hg feed rate limit is a hazardous waste thermal concentration limit expressed as pounds of Hg in hazardous waste feedstreams per mmBTU of hazardous waste fired.

(3) You must comply with the hazardous waste Hg thermal concentration limit by determining the feed rate of Hg in all hazardous waste feedstreams (lb/hr) at least once a minute and the hazardous waste thermal feed rate (mmBTU/hr) at least once a minute to calculate a 60-minute average thermal emission concentration as  $[\text{hazardous waste Hg feed rate (lb/hr)} / \text{hazardous waste thermal feed rate (mmBTU/hr)}]$ .

(4) You must calculate a rolling average hazardous waste Hg thermal concentration that is updated each hour.

(5) If you select an averaging period for the feed rate limit that is greater than a 12-hour rolling average, you must calculate the initial rolling average as though you had selected a 12-hour rolling average, as provided by paragraph (b)(5)(i) of this section. You must calculate rolling averages thereafter as the average of the available 1-minute values until enough 1-minute values are available to calculate the rolling average period you select. At that time and thereafter, you update the rolling average feed rate each hour with a 60-minute average feed rate.

(C) If you burn hazardous waste with a heating value of less than 10,000 Btu/lb, you must calculate the Hg feed rate limit as follows:

(1) You must calculate the Hg feed rate limit as the Hg emission standard divided by  $[1 - \text{SRE}]$ .

(2) The feed rate limit is expressed as a mass concentration per unit volume of stack gas ( $\text{g/dscm}$ ) and is converted to a mass feed rate ( $\text{lb/hr}$ ) by multiplying it by the average stack gas flow rate of the test run averages.

(3) You must comply with the feed rate limit by determining the Hg feed rate ( $\text{lb/hr}$ ) at least once a minute to calculate a 60-minute average feed rate.

(4) You must update the rolling average feed rate each hour with this 60-minute feed rate measurement.

(5) If you select an averaging period for the feed rate limit that is greater than a 12-hour rolling average, you must calculate the initial rolling average as though you had selected a 12-hour rolling average, as provided by paragraph (b)(5)(i) of this section. You must calculate rolling averages thereafter as the average of the available 1-minute values until enough 1-minute values are available to calculate the rolling average period you select. At that time and thereafter, you update the rolling average feed rate each hour with a 60-minute average feed rate.

(D) If your boiler is equipped with a wet scrubber, you must comply with the following unless you document in the performance test plan that you do not feed chlorine at rates that may substantially affect the SRE of Hg for purposes of establishing a Hg feed rate limit based on the SRE during the test:

(1) Scrubber blowdown must be minimized during a pretest conditioning period and during the performance test;

(2) Scrubber water must be preconditioned so that Hg in the water is at equilibrium with stack gas at the Hg feed rate level of the performance test; and

(3) You must establish an operating limit on minimum pH of scrubber water as the average of the test run averages and comply with the limit on an hourly rolling average.

(iii) For cement kilns:

(A) When complying with the emission standards under §§ 63.1220(a)(2)(i) and (b)(2)(i), you must:

(1) Comply with the Hg hazardous waste feed concentration operating requirement on a 12-hour rolling average;

(2) Monitor and record in the operating record the as-fired Hg concentration in the hazardous waste (or the weighted-average Hg concentration for multiple hazardous waste feedstreams);

(3) Initiate an AWFCO that immediately and automatically cuts off the hazardous waste feed when the as-fired Hg concentration operating requirement is exceeded;

(B) When complying with the emission standards under §§ 63.1204, 63.1220(a)(2)(ii) and (b)(2)(ii), you must establish a 12-hour rolling average limit for the total feed rate of Hg in all feedstreams as the average of the test run averages;

(C) Except as provided by paragraph (1)(1)(iii)(D) of this section, when complying with the hazardous waste feed rate corresponding to a MTEC under §§ 63.1220(a)(2)(iii) and (b)(2)(iii), you must:

(1) Comply with the MTEC operating requirement on a 12-hour rolling average;

(2) Monitor and record the feed rate of Hg for each hazardous waste feedstream according to § 63.1209(c);

(3) Monitor with a CMS and record in the operating record the gas flow rate (either directly or by monitoring a surrogate parameter that you have correlated to gas flow rate);

(4) Continuously calculate and record in the operating record a MTEC assuming Hg from all hazardous waste feedstreams is emitted;

(5) Initiate an AWFCO that immediately and automatically cuts off the hazardous waste feed when the MTEC operating requirement is exceeded;

(D) In lieu of complying with paragraph (1)(1)(iii)(C) of this section, you may:

(1) Identify in the NOC a minimum gas flow rate limit and a maximum feed rate limit of Hg from all hazardous waste feedstreams that ensures the MTEC calculated in paragraph (1)(1)(iii)(B)(4) of this section is below the operating requirement under paragraphs §§ 63.1220(a)(2)(iii) and (b)(2)(iii); and

(2) Initiate an AWFCO that immediately and automatically cuts off the hazardous waste feed when either the gas flow rate or Hg feed rate exceeds the limits identified in paragraph (1)(1)(iv)(D)(1) of this section.

(iv) For LWAKs:

(A) When complying with the emission standards under §§ 63.1205, 63.1221(a)(2)(i) and (b)(2)(i), you must establish a 12-hour rolling average limit for the total feed rate of Hg in all feedstreams as the average of the test run averages;

(B) Except as provided by paragraph (1)(1)(iv)(C) of this section, when complying with the hazardous waste feed rate corresponding to a MTEC under §§ 63.1221(a)(2)(ii) and (b)(2)(ii), you must:

(1) Comply with the MTEC operating requirement on a 12-hour rolling average;

(2) Monitor and record the feed rate of Hg for each hazardous waste feedstream according to § 63.1209(c);

(3) Monitor with a CMS and record in the operating record the gas flow rate (either directly or by monitoring a surrogate parameter that you have correlated to gas flow rate);

(4) Continuously calculate and record in the operating record a MTEC assuming Hg from all hazardous waste feedstreams is emitted;

(5) Initiate an AWFCO that immediately and automatically cuts off the hazardous waste feed when the MTEC operating requirement is exceeded;

(C) In lieu of complying with paragraph (1)(1)(iv)(B) of this section, you may:

(1) Identify in the NOC a minimum gas flow rate limit and a maximum feed rate limit of Hg from all hazardous waste feedstreams that ensures the MTEC calculated in paragraph (1)(1)(iv)(B)(4) of this section is below the operating requirement under paragraphs §§ 63.1221(a)(2)(ii) and (b)(2)(ii); and

(2) Initiate an AWFCO that immediately and automatically cuts off the hazardous waste feed when either the gas flow rate or Hg feed rate exceeds the limits identified in paragraph (1)(1)(iv)(C)(1) of this section.

(v) Extrapolation of feed rate levels. In lieu of establishing Hg feed rate limits as specified in paragraphs (1)(1)(i) through (iv) of this section, you may request as part of the performance test plan under §§ 63.7(b) and (c) and §§ 63.1207 (e) and (f) to use the Hg feed rates and associated emission rates during the CPT to extrapolate to higher allowable feed rate limits and emission rates. The extrapolation methodology will be reviewed and approved, as warranted, by the Administrator. The review will consider in particular whether:

(A) Performance test metal feed rates are appropriate (i.e., whether feed rates are at least at normal levels; depending on the

heterogeneity of the waste, whether some level of spiking would be appropriate; and whether the physical form and species of spiked material is appropriate); and

(B) Whether the extrapolated feed rates you request are warranted considering historical metal feed rate data.

(2) Wet scrubber. If your combustor is equipped with a wet scrubber, you must establish OPLs prescribed by paragraph (o)(3) of this section, except for paragraph (o)(3)(iv).

(3) Activated carbon injection. If your combustor is equipped with an activated carbon injection system, you must establish OPLs prescribed by paragraphs (k)(5) and (k)(6) of this section.

(4) Activated carbon bed. If your combustor is equipped with an activated carbon bed system, you must comply with the requirements of (k)(7) of this section to assure compliance with the Hg emission standard.

(m) PM. You must comply with the PM emission standard by establishing and complying with the following OPLs. You must base the limits on operations during the CPT, unless the limits are based on manufacturer specifications.

(1) Control device OPLs.

(i) Wet scrubbers. For sources equipped with wet scrubbers, including ionizing wet scrubbers, high energy wet scrubbers such as venturi, hydrosonic, collision, or free jet wet scrubbers, and low energy wet scrubbers such as spray towers, packed beds, or tray towers, you must establish limits on the following parameters:

(A) For high energy scrubbers only, minimum pressure drop across the wet scrubber on an hourly rolling average, established as the average of the test run averages;

(B) For all wet scrubbers:

(1) To ensure that the solids content of the scrubber liquid does not exceed levels during the performance test, you must either:

(i) Establish a limit on solids content of the scrubber liquid using a CMS or by manual sampling and analysis. If you elect to monitor solids content manually, you must sample and analyze the scrubber liquid hourly unless you support an alternative monitoring frequency in the performance test plan that you submit for review and approval; or

(ii) Establish a minimum blowdown rate using a CMS and either a minimum scrubber tank volume or liquid level using a CMS.

(2) For maximum solids content monitored with a CMS, you must establish a limit on a 12-hour rolling average as the average of the test run averages.

(3) For maximum solids content measured manually, you must establish an hourly limit, as measured at least once per hour, unless you support an alternative monitoring frequency in the performance test plan that you submit for review and approval. You must establish the maximum hourly limit as the average of the manual measurement averages for each run.

(4) For minimum blowdown rate and either a minimum scrubber tank volume or liquid level using a CMS, you must establish a limit on an hourly rolling average as the average of the test run averages.

(C) For high energy wet scrubbers only, you must establish limits on either the minimum liquid to gas ratio or the minimum scrubber water flow rate and maximum flue gas flow rate on an hourly rolling average. If you establish limits on maximum flue gas flow rate under this paragraph, you need not establish a limit on maximum flue gas flow rate under paragraph (m)(2) of this section. You must establish these hourly rolling average limits as the average of the test run averages; and

(ii) - (iii) [Reserved]

(iv) Other PM control devices. For each PM control device that is not a fabric filter or high energy wet scrubber, or is not an electrostatic precipitator or ionizing wet scrubber for which you elect to monitor PM loadings under § 63.1206(c)(9) of this chapter for process control, you must ensure that the control device is properly operated and maintained as required by § 63.1206(c)(7) and by monitoring the operation of the control device as follows:

(A) During each CPT conducted to demonstrate compliance with the PM emissions standard, you must establish a range of operating values for the control device that is a representative and reliable indicator that the control device is operating within the same range of conditions as during the performance test. You must establish this range of operating values as follows:

(1) You must select a set of operating parameters appropriate for the control device design that you determine to be a representative and reliable indicator of the control device performance.

(2) You must measure and record values for each of the selected operating parameters during each test run of the performance test. A value for each selected parameter must be recorded using a continuous monitor.



(3) For each selected operating parameter measured in accordance with the requirements of paragraph (m)(1)(iv)(A)(1) of this section, you must establish a minimum OPL or a maximum OPL, as appropriate for the parameter, to define the operating limits within which the control device can operate and still continuously achieve the same operating conditions as during the performance test.

(4) You must prepare written documentation to support the OPLs established for the control device and you must include this documentation in the performance test plan that you submit for review and approval. This documentation must include a description for each selected parameter and the operating range and monitoring frequency required to ensure the control device is being properly operated and maintained.

(B) You must install, calibrate, operate, and maintain a monitoring device equipped with a recorder to measure the values for each operating parameter selected in accordance with the requirements of paragraph (m)(1)(iv)(A)(1) of this section. You must install, calibrate, and maintain the monitoring equipment in accordance with the equipment manufacturer's specifications. The recorder must record the detector responses at least every 60 seconds, as required in the definition of continuous monitor.

(C) You must regularly inspect the data recorded by the operating parameter monitoring system at a sufficient frequency to ensure the control device is operating properly. An excursion is determined to have occurred any time that the actual value of a selected operating parameter is less than the minimum operating limit (or, if applicable, greater than the maximum operating limit) established for the parameter in accordance with the requirements of paragraph (m)(1)(iv)(A)(3) of this section.

(D) Operating parameters selected in accordance with paragraph (m)(1)(iv) of this section may be based on manufacturer specifications provided you support the use of manufacturer specifications in the performance test plan that you submit for review and approval.

(2) Maximum flue gas flow rate or production rate.

(i) As an indicator of gas residence time in the control device, you must establish a limit on the maximum flue gas flow rate, the maximum production rate, or another parameter that you document in the site-specific test plan as an appropriate surrogate for gas residence time, as the average of the maximum hourly rolling averages for each run.

(ii) You must comply with this limit on a hourly rolling average basis;

(3) Maximum ash feed rate. Owners and operators of hazardous waste incinerators, SFBs, and LFBs must establish a maximum ash feed rate

limit as a 12-hour rolling average based on the average of the test run averages. This requirement is waived, however, if you comply with the PM detection system requirements under § 63.1206(c) (9).

(n) SVMs and LVMs. You must comply with the SVM (Cd and Pb) and LVM (As, Be, and Cr) emission standards by establishing and complying with the following OPLs. You must base the limits on operations during the CPT, unless the limits are based on manufacturer specifications.

(1) Maximum inlet temperature to dry PM air pollution control device. You must establish a limit on the maximum inlet temperature to the primary dry metals emissions control device (e.g., electrostatic precipitator, baghouse) on an hourly rolling average basis as the average of the test run averages.

(2) Maximum feed rate of SVMs and LVMs.

(i) General. You must establish feed rate limits for SVMs (Cd and Pb) and LVMs (As, Be, and Cr) as follows, except as provided by paragraph (n) (2) (vii) of this section.

(ii) For incinerators, cement kilns, and LWAKs, when complying with the emission standards under §§ 63.1203, 63.1204, 63.1205, and 63.1219, and for SFBs when complying with the emission standards under § 63.1216, you must establish 12-hour rolling average limits for the total feed rate of SVMs and LVMs in all feedstreams as the average of the test run averages.

(iii) Cement kilns under § 63.1220

(A) When complying with the emission standards under §§ 63.1220(a) (3) (i), (a) (4) (i), (b) (3) (i), and (b) (4) (i), you must establish 12-hour rolling average feed rate limits for SVMs and LVMs as the thermal concentration of SVMs or LVMs in all hazardous waste feedstreams. You must calculate hazardous waste thermal concentrations for SVMs and LVMs for each run as the total mass feed rate of SVMs or LVMs for all hazardous waste feedstreams divided by the total heat input rate for all hazardous waste feedstreams. The 12-hour rolling average feed rate limits for SVMs and LVMs are the average of the hazardous waste thermal concentrations for the runs.

(B) When complying with the emission standards under §§ 63.1220(a) (3) (ii), (a) (4) (ii), (b) (3) (ii), and (b) (4) (ii), you must establish 12-hour rolling average limits for the total feed rate of SVMs and LVMs in all feedstreams as the average of the test run averages.

(iv) LWAKs under § 63.1221

(A) When complying with the emission standards under §§ 63.1221(a) (3) (i), (a) (4) (i), (b) (3) (i), and (b) (4) (i), you must establish 12-hour rolling average feed rate limits for SVMs and LVMs

as the thermal concentration of SVMs or LVMs in all hazardous waste feedstreams as specified in paragraphs (n)(2)(iii)(A) of this section.

(B) When complying with the emission standards under §§ 63.1221(a)(3)(ii), (a)(4)(ii), (b)(3)(ii), and (b)(4)(ii), you must establish 12-hour rolling average limits for the total feed rate of SVMs and LVMs in all feedstreams as the average of the test run averages.

(v) LFBs under § 63.1217.

(A) SVMs. You must establish a rolling average limit for the SVM feed rate as follows on an averaging period not to exceed an annual rolling average.

(1) SRE. You must calculate a SVM SRE for each test run and calculate the average SRE of the test run averages. If emissions exceed the SVM emission standard during the CPT, it is not a violation because the averaging period for the SVM emission standard is 1 year and compliance is based on compliance with the SVM feed rate limit that has an averaging period not to exceed an annual rolling average.

(2) Boilers that feed hazardous waste with a heating value of 10,000 Btu/lb or greater. You must calculate the SVM feed rate limit as the SVM emission standard divided by  $[1 - \text{SRE}]$ .

(i) The feed rate limit is a hazardous waste thermal concentration limit expressed as pounds of SVMs in all hazardous waste feedstreams per mmBTU of hazardous waste fed to the boiler.

(ii) You must comply with the hazardous waste SVM thermal concentration limit by determining the feed rate of SVM in all hazardous waste feedstreams (lb/hr) and the hazardous waste thermal feed rate (MmBTU/hr) at least once a minute to calculate a 60-minute average thermal emission concentration as  $[\text{hazardous waste SVM feed rate (lb/hr)} / \text{hazardous waste thermal feed rate (MmBTU/hr)}]$ .

(iii) You must calculate a rolling average hazardous waste SVM thermal concentration that is updated each hour.

(iv) If you select an averaging period for the feed rate limit that is greater than a 12-hour rolling average, you must calculate the initial rolling average as though you had selected a 12-hour rolling average, as provided by paragraph (b)(5)(i) of this section. You must calculate rolling averages thereafter as the average of the available 1-minute values until enough 1-minute values are available to calculate the rolling average period you select. At that time and thereafter, you update the rolling average feed rate each hour with a 60-minute average feed rate.

(3) Boilers that feed hazardous waste with a heating value less than 10,000 Btu/lb.

(i) You must calculate the SVM feed rate limit as the SVM emission standard divided by  $[1 - \text{SRE}]$ .

(ii) The feed rate limit is expressed as a mass concentration per unit volume of stack gas ( $\text{g/dscm}$ ) and is converted to a mass feed rate ( $\text{lb/hr}$ ) by multiplying it by the average stack gas flow rate ( $\text{dscm/hr}$ ) of the test run averages.

(iii) You must comply with the feed rate limit by determining the SVM feed rate ( $\text{lb/hr}$ ) at least once a minute to calculate a 60-minute average feed rate.

(iv) You must update the rolling average feed rate each hour with this 60-minute feed rate measurement.

(v) If you select an averaging period for the feed rate limit that is greater than a 12-hour rolling average, you must calculate the initial rolling average as though you had selected a 12-hour rolling average, as provided by paragraph (b)(5)(i) of this section. You must calculate rolling averages thereafter as the average of the available 1-minute values until enough 1-minute values are available to calculate the rolling average period you select. At that time and thereafter, you update the rolling average feed rate each hour with a 60-minute average feed rate.

(B) Cr.

(1) Boilers that feed hazardous waste with a heating value of 10,000 Btu/lb or greater.

(i) The feed rate limit is a hazardous waste thermal concentration limit expressed as pounds of Cr in all hazardous waste feedstreams per mmBTU of hazardous waste fed to the boiler.

(ii) You must comply with the hazardous waste Cr thermal concentration limit by determining the feed rate of Cr in all hazardous waste feedstreams ( $\text{lb/hr}$ ) and the hazardous waste thermal feed rate ( $\text{mmBTU/hr}$ ) at least once a minute to calculate a 60-minute average thermal emission concentration as  $[\text{hazardous waste Cr feed rate (lb/hr)} / \text{hazardous waste thermal feed rate (mmBTU/hr)}]$ . You must update the rolling average feed rate each hour with this 60-minute average feed rate measurement.

(2) Boilers that feed hazardous waste with a heating value less than 10,000 Btu/lb. You must establish a 12-hour rolling average limit for the total feed rate ( $\text{lb/hr}$ ) of Cr in all feedstreams as the average of the test run averages. You must update the rolling average feed rate each hour with a 60-minute average feed rate measurement.

(vi) LVM limits for pumpable wastes. You must establish separate feed rate limits for LVMs in pumpable feedstreams using the procedures

prescribed above for total LVMs. Dual feed rate limits for both pumpable and total feedstreams are not required, however, if you base the total feed rate limit solely on the feed rate of pumpable feedstreams.

(vii) Extrapolation of feed rate levels. In lieu of establishing feed rate limits as specified in paragraphs (1)(1)(i) through (iii) of this section, you may request as part of the performance test plan under §§ 63.7(b) and (c) and §§ 63.1207(e) and (f) to use the SVM and LVM feed rates and associated emission rates during the CPT to extrapolate to higher allowable feed rate limits and emission rates. The extrapolation methodology will be reviewed and approved, as warranted, by the Administrator. The review will consider in particular whether:

(A) Performance test metal feed rates are appropriate (i.e., whether feed rates are at least at normal levels; depending on the heterogeneity of the waste, whether some level of spiking would be appropriate; and whether the physical form and species of spiked material is appropriate); and

(B) Whether the extrapolated feed rates you request are warranted considering historical metal feed rate data.

(3) Control device OPLs. You must establish OPLs on the PM control device as specified by paragraph (m)(1) of this section;

(4) Maximum total chlorine and chloride feed rate. You must establish a 12-hour rolling average limit for the feed rate of total chlorine and chloride in all feedstreams as the average of the test run averages.

(5) Maximum flue gas flow rate or production rate.

(i) As an indicator of gas residence time in the control device, you must establish a limit on the maximum flue gas flow rate, the maximum production rate, or another parameter that you document in the site-specific test plan as an appropriate surrogate for gas residence time, as the average of the maximum hourly rolling averages for each run.

(ii) You must comply with this limit on a hourly rolling average basis.

(o) HCl/Cl<sub>2</sub>. You must comply with the HCl/Cl<sub>2</sub> emission standard by establishing and complying with the following OPLs. You must base the limits on operations during the CPT, unless the limits are based on manufacturer specifications.

(1) Feed rate of total chlorine and chloride.

(i) Incinerators, cement kilns, LWAKs, SFBs, and HCl production furnaces. You must establish a 12-hour rolling average limit for the

total feed rate of chlorine (organic and inorganic) in all feedstreams as the average of the test run averages.

(ii) LFBs.

(A) Boilers that feed hazardous waste with a heating value not less than 10,000 Btu/lb.

(1) The feed rate limit is a hazardous waste thermal concentration limit expressed as pounds of chlorine (organic and inorganic) in all hazardous waste feedstreams per mmBTU of hazardous waste fed to the boiler.

(2) You must establish a 12-hour rolling average feed rate limit as the average of the test run averages.

(3) You must comply with the feed rate limit by determining the mass feed rate of hazardous waste feedstreams (lb/hr) at least once a minute and by knowing the chlorine (organic and inorganic) content and heating value (mmBTU/lb) of hazardous waste feedstreams at all times to calculate a 60-minute average feed rate measurement as  $[\text{hazardous waste chlorine feed rate (lb/hr)} / \text{hazardous waste thermal feed rate (mmBTU/hr)}]$ . You must update the rolling average feed rate each hour with this 60-minute average feed rate measurement.

(B) Boilers that feed hazardous waste with a heating value less than 10,000 Btu/lb. You must establish a 12-hour rolling average limit for the total feed rate of chlorine (organic and inorganic) in all feedstreams as the average of the test run averages. You must update the rolling average feed rate each hour with a 60-minute average feed rate measurement.

(2) Maximum flue gas flow rate or production rate.

(i) As an indicator of gas residence time in the control device, you must establish a limit on the maximum flue gas flow rate, the maximum production rate, or another parameter that you document in the site-specific test plan as an appropriate surrogate for gas residence time, as the average of the maximum hourly rolling averages for each run.

(ii) You must comply with this limit on a hourly rolling average basis;

(3) Wet scrubber. If your combustor is equipped with a wet scrubber:

(i) If your source is equipped with a high energy wet scrubber such as a venturi, hydrosonic, collision, or free jet wet scrubber, you must establish a limit on minimum pressure drop across the wet scrubber on an hourly rolling average as the average of the test run averages;

(ii) If your source is equipped with a low energy wet scrubber such as a spray tower, packed bed, or tray tower, you must establish a minimum pressure drop across the wet scrubber based on manufacturer's specifications. You must comply with the limit on an hourly rolling average;

(iii) If your source is equipped with a low energy wet scrubber, you must establish a limit on minimum liquid feed pressure to the wet scrubber based on manufacturer's specifications. You must comply with the limit on an hourly rolling average;

(iv) You must establish a limit on minimum pH on an hourly rolling average as the average of the test run averages;

(v) You must establish limits on either the minimum liquid to gas ratio or the minimum scrubber water flow rate and maximum flue gas flow rate on an hourly rolling average as the average of the test run averages. If you establish limits on maximum flue gas flow rate under this paragraph, you need not establish a limit on maximum flue gas flow rate under paragraph (o) (2) of this section; and

(4) Dry scrubber. If your combustor is equipped with a dry scrubber, you must establish the following OPLs:

(i) Minimum sorbent feed rate. You must establish a limit on minimum sorbent feed rate on an hourly rolling average as the average of the test run averages.

(ii) Minimum carrier fluid flow rate or nozzle pressure drop. You must establish a limit on minimum carrier fluid (gas or liquid) flow rate or nozzle pressure drop based on manufacturer's specifications.

(iii) Sorbent specifications.

(A) You must specify and use the brand (i.e., manufacturer) and type of sorbent used during the CPT until a subsequent CPT is conducted, unless you document in the site-specific performance test plan required under §§ 63.1207(e) and (f) key parameters that affect adsorption and establish limits on those parameters based on the sorbent used in the performance test.

(B) You may substitute at any time a different brand or type of sorbent provided that the replacement has equivalent or improved properties compared to the sorbent used in the performance test and conforms to the key sorbent parameters you identify under paragraph (o) (4) (iii) (A) of this section. You must record in the operating record documentation that the substitute sorbent will provide the same level of control as the original sorbent.

(p) Maximum combustion chamber pressure. If you comply with the requirements for combustion system leaks under § 63.1206(c) (5) by maintaining the maximum combustion chamber zone pressure lower than ambient pressure to prevent combustion systems leaks from hazardous

waste combustion, you must perform instantaneous monitoring of pressure and the AWFCO system must be engaged when negative pressure is not adequately maintained.

(q) Operating under different modes of operation. If you operate under different modes of operation, you must establish OPLs for each mode. You must document in the operating record when you change a mode of operation and begin complying with the operating limits for an alternative mode of operation.

(1) Operating under otherwise applicable standards after the hazardous waste residence time has transpired. As provided by § 63.1206(b)(1)(ii), you may operate under otherwise applicable requirements promulgated under sections 112 and 129 of the Clean Air Act in lieu of the substantive requirements of this subpart.

(i) The otherwise applicable requirements promulgated under sections 112 and 129 of the Clean Air Act are applicable requirements under this subpart.

(ii) You must specify (e.g., by reference) the otherwise applicable requirements as a mode of operation in your DOC under § 63.1211(c), your NOC under § 63.1207(j), and your title V permit application. These requirements include the otherwise applicable requirements governing emission standards, monitoring and compliance, and notification, reporting, and recordkeeping.

(2) Calculating rolling averages under different modes of operation. When you transition to a different mode of operation, you must calculate rolling averages as follows:

(i) Retrieval approach. Calculate rolling averages anew using the CMS values previously recorded for that mode of operation (i.e., you ignore CMS values subsequently recorded under other modes of operation when you transition back to a mode of operation); or

(ii) Start anew. Calculate rolling averages anew without considering previous recordings.

(A) Rolling averages must be calculated as the average of the available 1-minute values for the parameter until enough 1-minute values are available to calculate hourly or 12-hour rolling averages, whichever is applicable to the parameter.

(B) You may not transition to a new mode of operation using this approach if the most recent operation in that mode resulted in an exceedance of an applicable emission standard measured with a CEMS or OPL prior to the hazardous waste residence time expiring; or

(iii) Seamless transition. Continue calculating rolling averages using data from the previous operating mode provided that both the operating limit and the averaging period for the parameter are the same for both modes of operation.



(r) Averaging periods. The averaging periods specified in this section for operating parameters are not-to-exceed averaging periods. You may elect to use shorter averaging periods. For example, you may elect to use a 1-hour rolling average rather than the 12-hour rolling average specified in paragraph (l)(1)(i) of this section for Hg.

[64 FR 53038, Sept. 30, 1999, as amended at 65 FR 42300, July 10, 2000; 65 FR 67271, Nov. 9, 2000; 66 FR 24272, May 14, 2001; 66 FR 35106, July 3, 2001; 67 FR 6815, Feb. 13, 2002; 67 FR 6991, Feb. 14, 2002; 67 FR 77691, Dec. 19, 2002; 70 FR 59548, Oct. 12, 2005]

## **Notification, Reporting and Recordkeeping**

### **§ 63.1210 What are the notification requirements?**

#### (a) Summary of requirements.

(1) You must submit the following notifications to the Administrator:

Reference	Notification
63.9(b)	Initial notifications that you are subject to Subpart EEE of this Part.
63.9(d)	Notification that you are subject to special compliance requirements.
63.9(j)	Notification and documentation of any change in information already provided under § 63.9.
63.1206(b)(5)(i)	Notification of changes in design, operation, or maintenance.
63.1206(c)(7)(ii)(C)	Notification of excessive bag leak detection system exceedances.
63.1207(e), 63.9(e) 63.9(g)(1) and (3)	Notification of performance test and continuous monitoring system evaluation, including the performance test plan and CMS performance evaluation plan.\1\
63.1210(b)	Notification of intent to comply.
63.1210(d), 63.1207(j), 63.1207(k), 63.1207(l), 63.9(h), 63.10(d)(2), 63.10(e)(2)	NOC, including results of performance tests and continuous monitoring system performance evaluations

\1\ You may also be required on a case-by-case basis to submit a feedstream analysis plan under § 63.1209(c)(3).

(2) You must submit the following notifications to the Administrator if you request or elect to comply with alternative requirements:

Reference	Notification, request, petition, or application
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63.9(i)	You may request an adjustment to time periods or postmark deadlines for submittal and review of required information.
63.10(e) (3) (ii)	You may request to reduce the frequency of excess emissions and CMS performance reports.
63.10(f)	You may request to waive recordkeeping or reporting requirements.
63.1204(d) (2) (iii), 63.1220(d) (2) (iii)	Notification that you elect to comply with the emission averaging requirements for cement kilns with in-line raw mills.
63.1204(e) (2) (iii), 63.1220(e) (2) (iii)	Notification that you elect to comply with the emission averaging requirements for preheater or preheater/precalciner kilns with dual stacks.
63.1206(b) (4), 63.1213, 63.6(i), 63.9(c)	You may request an extension of the compliance date for up to 1 year.
63.1206(b) (5) (i) (C)	You may request to burn hazardous waste for more than 720 hours and for purposes other than testing or pretesting after making a change in the design or operation that could affect compliance with emission standards and prior to submitting a revised Notification of Compliance.
63.1206(b) (8) (iii) (B )	If you elect to conduct PM CEMS correlation testing and wish to have federal PM and opacity standards and associated operating limits waived during the testing, you must notify the Administrator by submitting the correlation test plan for review and approval.
63.1206(b) (8) (v)	You may request approval to have the PM and opacity standards and associated operating limits and conditions waived for more than 96 hours for a correlation test.
63.1206(b) (9)	Owners and operators of LWAKs may request approval of alternative emission standards for Hg, SVM, LVM, and HCl/Cl <sub>2</sub> under certain conditions.
63.1206(b) (10)	Owners and operators of cement kilns may request approval of alternative emission standards for Hg, SVM, LVM, and HCl/Cl <sub>2</sub> under certain conditions.
63.1206(b) (14)	Owners and operators of incinerators may elect to comply with an alternative to the PM standard.
63.1206(b) (15)	Owners and operators of cement and LWAKs may request to comply with the alternative to the interim standards for Hg.
63.1206(c) (2) (ii) (C)	You may request to make changes to the startup, shutdown, and malfunction plan.

63.1206(c) (5) (i) (C)	You may request an alternative means of control to provide control of combustion system leaks.
63.1206(c) (5) (i) (D)	You may request other techniques to prevent fugitive emissions without use of instantaneous pressure limits.
63.1207(c) (2)	You may request to base initial compliance on data in lieu of a CPT.
63.1207(d) (3)	You may request more than 60 days to complete a performance test if additional time is needed for reasons beyond your control.
63.1207(e) (3) , 63.7(h)	You may request a time extension if the Administrator fails to approve or deny your test plan.
63.1207(h) (2)	You may request to waive current OPLs during pretesting for more than 720 hours.
63.1207(f) (1) (ii) (D)	You may request a reduced hazardous waste feedstream analysis for organic HAPs if the reduced analysis continues to be representative of organic HAPs in your hazardous waste feedstreams.
63.1207(g) (2) (v)	You may request to operate under a wider operating range for a parameter during confirmatory performance testing.
63.1207(i)	You may request up to a 1-year time extension for conducting a performance test (other than the initial CPT) to consolidate testing with other state or federally-required testing.
63.1207(j) (4)	You may request more than 90 days to submit a NOC after completing a performance test if additional time is needed for reasons beyond your control.
63.1207(l) (3)	After failure of a performance test, you may request to burn hazardous waste for more than 720 hours and for purposes other than testing or pretesting.
63.1209(a) (5) , 63.8(f)	You may request: (1) Approval of alternative monitoring methods for compliance with standards that are monitored with a CEMS; and (2) approval to use a CEMS in lieu of OPLs.
63.1209(g) (1)	You may request approval of: (1) Alternatives to operating parameter monitoring requirements, except for standards that you must monitor with a CEMS and except for requests to use a CEMS in lieu of OPLs; or (2) a waiver of an OPL.
63.1209(l) (1)	You may request to extrapolate Hg federate limits.
63.1209(n) (2)	You may request to extrapolate SVM and LVM feed rate limits.
63.1211(d)	You may request to use data compression

	techniques to record data on a less frequent basis than required by § 63.1209.
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(b) NIC. These procedures apply to sources that have not previously complied with the requirements of paragraph (b) of this section, and to sources that previously complied with the NIC requirements of § 63.1210, which were in effect prior to October 11, 2000, that must make a technology change requiring a Class 1 permit modification to meet the standards of §§ 63.1219, 63.1220, and 63.1221.

(1) You must prepare a NIC that includes all of the following information:

(i) General information:

(A) The name and address of the owner/operator and the source;

(B) Whether the source is a major or an area source;

(C) Waste minimization and emission control technique(s) being considered;

(D) Emission monitoring technique(s) you are considering;

(E) Waste minimization and emission control technique(s) effectiveness;

(F) A description of the evaluation criteria used or to be used to select waste minimization and/or emission control technique(s); and

(G) A general description of how you intend to comply with the emission standards of this subpart.

(ii) As applicable to each source, information on key activities and estimated dates for these activities that will bring the source into compliance with emission control requirements of this subpart. You must include all of the following key activities and dates in your NIC:

(A) The dates by which you anticipate you will develop engineering designs for emission control systems or process changes for emissions;

(B) The date by which you anticipate you will commit internal or external resources for installing emission control systems or making process changes for emission control, or the date by which you will issue orders for the purchase of component parts to accomplish emission control or process changes.

(C) The date by which you anticipate you will submit construction applications;

(D) The date by which you anticipate you will initiate on-site construction, installation of emission control equipment, or process change;

(E) The date by which you anticipate you will complete on-site construction, installation of emission control equipment, or process change; and

(F) The date by which you anticipate you will achieve final compliance. The individual dates and milestones listed in paragraphs (b)(1)(ii)(A) through (F) of this section as part of the NIC are not requirements and therefore are not enforceable deadlines; the requirements of paragraphs (b)(1)(ii)(A) through (F) of this section must be included as part of the NIC only to inform the public of how you intend to comply with the emission standards of this subpart.

(iii) A summary of the public meeting required under paragraph (c) of this section;

(iv) If you intend to cease burning hazardous waste prior to or on the compliance date, the requirements of paragraphs (b)(1)(ii) and (b)(1)(iii) of this section do not apply. You must include in your NIC a schedule of key dates for the steps to be taken to stop hazardous waste activity at your combustion unit. Key dates include the date for submittal of RCRA closure documents required under subpart G, part 264 or subpart G, part 265 of this chapter.

(2) You must make a draft of the NIC available for public review no later than 30 days prior to the public meeting required under paragraph (c)(1) of this section or no later than 9 months after the effective date of the rule if you intend to cease burning hazardous waste prior to or on the compliance date.

(3) You must submit the final NIC to the Administrator no later than 1 year following the effective date of the emission standards of this subpart.

(c) NIC public meeting and notice.

(1) Prior to the submission of the NIC to the permitting agency, and no later than 10 months after the effective date of the emission standards of this subpart, you must hold at least one informal meeting with the public to discuss anticipated activities described in the draft NIC for achieving compliance with the emission standards of this subpart. You must post a sign-in sheet or otherwise provide a voluntary opportunity for attendees to provide their names and addresses;

(2) You must submit a summary of the meeting, along with the list of attendees and their addresses developed under paragraph (b)(1) of this section, and copies of any written comments or materials submitted at

the meeting, to the Administrator as part of the final NIC, in accordance with paragraph (b)(1)(iii) of this section;

(3) You must provide public notice of the NIC meeting at least 30 days prior to the meeting and you must maintain, and provide to the Administrator upon request, documentation of the notice. You must provide public notice in all of the following forms:

(i) Newspaper advertisement. You must publish a notice in a newspaper of general circulation in the county or equivalent jurisdiction of your facility. In addition, you must publish the notice in newspapers of general circulation in adjacent counties or equivalent jurisdiction where such publication would be necessary to inform the affected public. You must publish the notice as a display advertisement.

(ii) Visible and accessible sign. You must post a notice on a clearly marked sign at or near the source. If you place the sign on the site of the HWC, the sign must be large enough to be readable from the nearest spot where the public would pass by the site.

(iii) Broadcast media announcement. You must broadcast a notice at least once on at least one local radio station or television station.

(iv) Notice to the facility mailing list. You must provide a copy of the notice to the facility mailing list in accordance with §124.10(c)(1)(ix) of this chapter.

(4) You must include all of the following in the notices required under paragraph (c)(3) of this section:

(i) The date, time, and location of the meeting;

(ii) A brief description of the purpose of the meeting;

(iii) A brief description of the source and proposed operations, including the address or a map (e.g., a sketched or copied street map) of the source location;

(iv) A statement encouraging people to contact the source at least 72 hours before the meeting if they need special access to participate in the meeting;

(v) A statement describing how the draft NIC (and final NIC, if requested) can be obtained; and

(vi) The name, address, and telephone number of a contact person for the NIC.

(5) The requirements of this paragraph do not apply to sources that intend to cease burning hazardous waste prior to or on the compliance date.

(d) NOC.

(1) The NOC status requirements of § 63.9(h) apply, except that:

(i) The notification is a NOC, rather than compliance status;

(ii) The notification is required for the initial CPT and each subsequent comprehensive and confirmatory performance test; and

(iii) You must postmark the notification before the close of business on the 90th day following completion of relevant compliance demonstration activity specified in this subpart rather than the 60th day as required by § 63.9(h) (2) (ii).

(2) Upon postmark of the NOC, the OPLs identified in the NOC, as applicable, shall be complied with, the limits identified in the DOC or a previous NOC are no longer applicable.

(3) The NOC requirements of § 63.1207(j) also apply.

[64 FR 53038, Sept. 30, 1999, as amended at 64 FR 63211, Nov. 19, 1999; 65 FR 42301, July 10, 2000; 66 FR 24272, May 14, 2001; 67 FR 6992, Feb. 14, 2002; 70 FR 59552, Oct. 12, 2005]

### **§ 63.1211 What are the recordkeeping and reporting requirements?**

(a) Summary of reporting requirements. You must submit the following reports to the Administrator:

Reference	Report
63.10 (d) (4)	Compliance progress reports, if required as a condition of an extension of the compliance date granted under § 63.6(i).
63.10 (d) (5) (i)	Periodic startup, shutdown, and malfunction reports.
63.10 (d) (5) (ii)	Immediate startup, shutdown, and malfunction reports.
63.10 (e) (3)	Excessive emissions and CMS performance report and summary report.
63.1206 (c) (2) (ii) (B)	Startup, shutdown, and malfunction plan.
63.1206 (c) (3) (vi)	Excessive exceedances reports.
63.1206 (c) (4) (iv)	Emergency safety vent opening reports.

(b) Summary of recordkeeping requirements. You must retain the following in the operating record:

Reference	Document, Data, or Information
63.1200, 63.10 (b)	General. Information required to document and

and (c)	maintain compliance with the regulations of Subpart EEE, including data recorded by CMSs, and copies of all notifications, reports, plans, and other documents submitted to the Administrator.
63.1204(d) (1) (ii), 63.1220(d) (1) (ii)	Documentation of mode of operation changes for cement kilns with in-line raw mills.
63.1204(d) (2) (ii), 63.1220(d) (2) (ii)	Documentation of compliance with the emission averaging requirements for cement kilns with in-line raw mills.
63.1204(e) (2) (ii), 63.1220(e) (2) (ii)	Documentation of compliance with the emission averaging requirements for preheater or preheater/precalciner kilns with dual stacks.
63.1206(b) (1) (ii)	If you elect to comply with all applicable requirements and standards promulgated under authority of the Clean Air Act, including Sections 112 and 129, in lieu of the requirements of Subpart EEE when not burning hazardous waste, you must document in the operating record that you are in compliance with those requirements.
63.1206(b) (5) (ii)	Documentation that a change will not adversely affect compliance with the emission standards or operating requirements.
63.1206(b) (11)	Calculation of hazardous waste residence time.
63.1206(c) (2)	SSMP.
63.1206(c) (2) (v) (A)	Documentation of your investigation and evaluation of excessive exceedances during malfunctions.
63.1206(c) (3) (v)	Corrective measures for any automatic waste feed cutoff that results in an exceedance of an emission standard or OPL.
63.1206(c) (3) (vii)	Documentation and results of the automatic waste feed cutoff operability testing.
63.1206(c) (4) (ii)	Emergency safety vent operating plan.
63.1206(c) (4) (iii)	Corrective measures for any emergency safety vent opening.
63.1206(c) (5) (ii)	Method used for control of combustion system leaks.
63.1206(c) (6)	Operator training and certification program.
63.1206(c) (7) (i) (D)	Operation and maintenance plan.
63.1209(c) (2)	Feedstream analysis plan.
63.1209(k) (6) (iii), 63.1209(k) (7) (ii), 63.1209(k) (9) (ii), 63.1209(o) (4) (iii)	Documentation that a substitute activated carbon, D/F formation reaction inhibitor, or dry scrubber sorbent will provide the same level of control as the original material.
63.1209(k) (7) (i) (C)	Results of carbon bed performance monitoring.
63.1209(q)	Documentation of changes in modes of operation.



63.1211(c)	DOC.
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(c) DOC.

(1) By the compliance date, you must develop and include in the operating record a DOC. You are not subject to this requirement, however, if you submit a NOC under § 63.1207(j) prior to the compliance date. Upon inclusion of the DOC in the operating record, hazardous waste burning incinerators, cement kilns, and LWAKs regulated under the interim standards of §§ 63.1203, 63.1204, and 63.1205 are no longer subject to compliance with the previously applicable NOC.

(2) The DOC must identify the applicable emission standards under this subpart and the limits on the operating parameters under § 63.1209 that will ensure compliance with those emission standards.

(3) You must include a signed and dated certification in the DOC that:

(i) Required CEMS and CMS are installed, calibrated, and continuously operating in compliance with the requirements of this subpart; and

(ii) Based on an engineering evaluation prepared under your direction or supervision in accordance with a system designed to ensure that qualified personnel properly gathered and evaluated the information and supporting documentation, and considering at a minimum the design, operation, and maintenance characteristics of the combustor and emissions control equipment, the types, quantities, and characteristics of feedstreams, and available emissions data:

(A) You are in compliance with the emission standards of this subpart; and

(B) The limits on the operating parameters under § 63.1209 ensure compliance with the emission standards of this subpart.

(4) You must comply with the emission standards and OPLs specified in the DOC.

(d) Data compression. You may submit a written request to the Administrator for approval to use data compression techniques to record data from CMS, including CEMS, on a frequency less than that required by § 63.1209. You must submit the request for review and approval as part of the CPT plan.

(1) You must record a data value at least once each ten minutes.

(2) For each CEMS or operating parameter for which you request to use data compression techniques, you must recommend:

(i) A fluctuation limit that defines the maximum permissible deviation of a new data value from a previously generated value without requiring you to revert to recording each 1-minute value.

(A) If you exceed a fluctuation limit, you must record each 1-minute value for a period of time not less than 10 minutes.

(B) If neither the fluctuation limit nor the data compression limit are exceeded during that period of time, you may reinitiate recording data values on a frequency of at least once each 10 minutes; and

(ii) A data compression limit defined as the closest level to an OPL or emission standard at which reduced data recording is allowed.

(A) Within this level and the OPL or emission standard, you must record each 1-minute average.

(B) The data compression limit should reflect a level at which you are unlikely to exceed the specific OPL or emission standard, considering its averaging period, with the addition of a new 1-minute average.

[64 FR 53038, Sept. 30, 1999, as amended at 64 FR 63212, Nov. 19, 1999; 65 FR 42301, July 10, 2000; 66 FR 24272, May 14, 2001; 66 FR 35106, July 3, 2001; 67 FR 6993, Feb. 14, 2002; 70 FR 59554, Oct. 12, 2005]

## Other

### § 63.1212 What are the other requirements pertaining to the NIC?

(a) Certification of intent to comply. The Notice of Intent to Comply (NIC) must contain the following certification signed and dated by a responsible official as defined under § 63.2 of this chapter: I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

(b) New units. Any source that files a RCRA permit application or permit modification request for construction of a hazardous waste combustion unit after October 12, 2005 must:

(1) Prepare a draft NIC according to § 63.1210(b) and make it available to the public upon issuance of the notice of NIC public meeting per § 63.1210(c) (3);

(2) Prepare a draft CPT plan pursuant to the requirements of § 63.1207 and make it available for public review upon issuance of the notice of NIC public meeting;

(3) Provide notice to the public of a pre-application meeting pursuant to § 124.30 or notice to the public of a permit modification request pursuant to § 270.42 and;

(4) Hold an informal public meeting 30 days following notice of NIC public meeting and notice of the pre-application meeting or notice of the permit modification request.

(c) Information Repository specific to new combustion units.

(1) Any source that files a RCRA permit application or modification request for construction of a new hazardous waste combustion unit after October 12, 2005 may be required to establish an information repository if deemed appropriate.

(2) The Administrator may assess the need, on a case-by-case basis for an information repository. When assessing the need for a repository, the Administrator shall consider the level of public interest, the presence of an existing repository, and any information available via the New Source Review and Title V permit processes. If the Administrator determines a need for a repository, then the Administrator shall notify the facility that it must establish and maintain an information repository.

(3) The information repository shall contain all documents, reports, data, and information deemed necessary by the Administrator. The

Administrator shall have the discretion to limit the contents of the repository.

(4) The information repository shall be located and maintained at a site chosen by the source. If the Administrator finds the site unsuitable for the purposes and persons for which it was established, due to problems with location, hours of availability, access, or other relevant considerations, then the Administrator shall specify a more appropriate site.

(5) The Administrator shall require the source to provide a written notice about the information repository to all individuals on the source mailing list.

(6) The source shall be responsible for maintaining and updating the repository with appropriate information throughout a period specified by the Administrator. The Administrator may close the repository at his or her discretion based on the considerations in paragraph (c)(2) of this section.

[70 FR 59555, Oct. 12, 2005]

**§ 63.1213 How can the compliance date be extended to install pollution prevention or waste minimization controls?**

(a) Applicability. You may request from the Administrator or State with an approved Title V program an extension of the compliance date of up to 1 year. An extension may be granted if you can reasonably document that the installation of pollution prevention or waste minimization measures will significantly reduce the amount and/or toxicity of hazardous wastes entering the feedstream(s) of the HWC(s), and that you could not install the necessary control measures and comply with the emission standards and operating requirements of this subpart by the compliance date.

(b) Requirements for requesting an extension.

(1) You must make your requests for an (up to) 1-year extension in writing in accordance with § 63.6(i)(4)(B) and (C). The request must contain the following information:

(i) A description of pollution prevention or waste minimization controls that, when installed, will significantly reduce the amount and/or toxicity of hazardous wastes entering the feedstream(s) of the HWC(s). Pollution prevention or waste minimization measures may include: equipment or technology modifications, reformulation or redesign of products, substitution of raw materials, improvements in work practices, maintenance, training, inventory control, or recycling practices conducted as defined in § 261.1(c) of this chapter;

(ii) A description of other pollution controls to be installed that are necessary to comply with the emission standards and operating requirements;

(iii) A reduction goal or estimate of the annual reductions in quantity and/or toxicity of hazardous waste(s) entering combustion feedstream(s) that you will achieve by installing the proposed pollution prevention or waste minimization measures;

(iv) A comparison of reductions in the amounts and/or toxicity of hazardous wastes combusted after installation of pollution prevention or waste minimization measures to the amounts and/or toxicity of hazardous wastes combusted prior to the installation of these measures. If the difference is less than a fifteen percent reduction, include a comparison to pollution prevention and waste minimization reductions recorded during the previous five years;

(v) Reasonable documentation that installation of the pollution prevention or waste minimization changes will not result in a net increase (except for documented increases in production) of hazardous constituents released to the environment through other emissions, wastes or effluents;

(vi) Reasonable documentation that the design and installation of waste minimization and other measures that are necessary for compliance with the emission standards and operating requirements of this subpart cannot otherwise be installed within the three year compliance period, and

(vii) The information required in § 63.6(i)(6)(i)(B) through (D).

(2) You may enclose documentation prepared under an existing State-required pollution prevention program that contains the information prescribed in paragraph (b) of this section with a request for extension in lieu of complying with the time extension requirements of that paragraph.

(c) Approval of request for extension of compliance date. Based on the information provided in any request made under paragraph (a) of this section, the Administrator or State with an approved title V program may grant an extension of the compliance date of this subpart. The extension will be in writing in accordance with §§ 63.6(i)(10)(i) through 63.6(i)(10)(v)(A).

[57 FR 61992, Dec. 29, 1992, as amended at 67 FR 6994, Feb. 14, 2002; 67 FR 77691, Dec. 19, 2002]

#### **§ 63.1214 Implementation and enforcement.**

(a) This subpart can be implemented and enforced by the U.S. EPA, or a delegated authority such as the applicable State, local, or Tribal agency. If the U.S. EPA Administrator has delegated authority to a State, local, or Tribal agency, then that agency, in addition to the

U.S. EPA, has the authority to implement and enforce this subpart. Contact the applicable U.S. EPA Regional Office to find out if this subpart is delegated to a State, local, or Tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or Tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the Administrator of U.S. EPA and cannot be transferred to the State, local, or Tribal agency.

(c) The authorities that cannot be delegated to State, local, or Tribal agencies are as specified in paragraphs (c)(1) through (4) of this section.

(1) Approval of alternatives to requirements in §§ 63.1200, 63.1203, 63.1204, 63.1205, 63.1206(a), 63.1215, 63.1216, 63.1217, 63.1218, 63.1219, 63.1220, and 63.1221.

(2) Approval of major alternatives to test methods under §§ 63.7(e)(2)(ii) and (f), 63.1208(b), and 63.1209(a)(1), as defined under § 63.90, and as required in this subpart.

(3) Approval of major alternatives to monitoring under §§ 63.8(f) and 63.1209(a)(5), as defined under § 63.90, and as required in this subpart.

(4) Approval of major alternatives to recordkeeping and reporting under §§ 63.10(f) and 63.1211(a) through (c), as defined under § 63.90, and as required in this subpart.

[68 FR 37356, June 23, 2003, as amended at 70 FR 59555, Oct. 12, 2005]

## **§ 63.1215 What are the health-based compliance alternatives for total chlorine?**

### (a) General.

(1) Overview. You may establish and comply with health-based compliance alternatives for total chlorine under the procedures prescribed in this section for your HWCs other than HCl production furnaces. You may comply with these health-based compliance alternatives in lieu of the emission standards for total chlorine provided under §§ 63.1216, 63.1217, 63.1219, 63.1220, and 63.1221. To identify and comply with the limits, you must:

(i) Identify a total chlorine emission concentration (ppmv) expressed as chloride (Cl<sup>-</sup>) equivalent for each on-site HWC. You may select total chlorine emission concentrations as you choose to demonstrate eligibility for the risk-based limits under this section, except as provided by paragraph (b)(4) of this section;

(ii) Apportion the total chlorine emission concentration between HCl and Cl<sub>2</sub> according to paragraph (b)(6)(i) of this section, and calculate HCl and Cl<sub>2</sub> emission rates (lb/hr) using the gas flow rate and other parameters from the most recent regulatory compliance test.

(iii) Calculate the annual average HCl-equivalent emission rate as prescribed in paragraph (b)(2) of this section.

(iv) Perform an eligibility demonstration to determine if your HCl-equivalent emission rate meets the national exposure standard and thus is below the annual average HCl-equivalent emission rate limit, as prescribed by paragraph (c) of this section;

(v) Submit your eligibility demonstration for review and approval, as prescribed by paragraph (e) of this section, which must include information to ensure that the 1-hour average HCl-equivalent emission rate limit is not exceeded, as prescribed by paragraph (d) of this section;

(vi) Demonstrate compliance with the annual average HCl-equivalent emission rate limit during the CPT, as prescribed by the testing and monitoring requirements under paragraph (e) of this section;

(vii) Comply with compliance monitoring requirements, including establishing feed rate limits on total chlorine and chloride, and OPLs on emission control equipment, as prescribed by paragraph (f) of this section; and

(viii) Comply with the requirements for changes, as prescribed by paragraph (h) of this section.

(2) Definitions. In addition to the definitions under § 63.1201, the following definitions apply to this section:

1-Hour Average HCl-Equivalent Emission Rate means the HCl-equivalent emission rate (lb/hr) determined by equating the toxicity of chlorine to HCl using 1-hour RELs as the health risk metric for acute exposure.

1-Hour Average HCl-Equivalent Emission Rate Limit means the HCl-equivalent emission rate (lb/hr) determined by equating the toxicity of chlorine to HCl using 1-hour RELs as the health risk metric for acute exposure and which ensures that maximum 1-hour average ambient concentrations of HCl-equivalents do not exceed a Hazard Index of 1.0, rounded to the nearest tenths decimal place (0.1), at an off-site receptor location.

Acute Reference Exposure Level (aREL) means health thresholds below which there would be no adverse health effects for greater than once in a lifetime exposures of one hour. ARELs are developed by the California Office of Health Hazard Assessment and are available at [Http://www.oehha.ca.gov/air/acute\\_rels/acuterel.html](http://www.oehha.ca.gov/air/acute_rels/acuterel.html).

Annual Average HCl-Equivalent Emission Rate means the HCl-equivalent emission rate (lb/hr) determined by equating the toxicity of chlorine to HCl using RfCs as the health risk metric for long-term exposure.

Annual Average HCl-Equivalent Emission Rate Limit means the HCl-equivalent emission rate (lb/hr) determined by equating the toxicity of chlorine to HCl using RfCs as the health risk metric for long-term exposure and which ensures that maximum annual average ambient concentrations of HCl equivalents do not exceed a Hazard Index of 1.0, rounded to the nearest tenths decimal place (0.1), at an off-site receptor location.

Hazard Index (HI) means the sum of more than one Hazard Quotient for multiple substances and/or multiple exposure pathways. In this section, the Hazard Index is the sum of the Hazard Quotients for HCl and chlorine.

Hazard Quotient (HQ) means the ratio of the predicted media concentration of a pollutant to the media concentration at which no adverse effects are expected. For chronic inhalation exposures, the HQ is calculated under this section as the air concentration divided by the RfC. For acute inhalation exposures, the HQ is calculated under this section as the air concentration divided by the aREL.

Look-up table analysis means a risk screening analysis based on comparing the HCl-equivalent emission rate from the affected source to the appropriate HCl-equivalent emission rate limit specified in Tables 1 through 4 of this section.

Reference Concentration (RfC) means an estimate (with uncertainty spanning perhaps an order of magnitude) of a continuous inhalation exposure to the human population (including sensitive subgroups) that is likely to be without an appreciable risk of deleterious effects during a lifetime. It can be derived from various types of human or animal data, with uncertainty factors generally applied to reflect limitations of the data used.

(b) HCl-equivalent emission rates.

(1) You must express total chlorine emission rates for each HWC as HCl-equivalent emission rates.

(2) Annual average rates. You must calculate annual average toxicity-weighted HCl-equivalent emission rates for each combustor as follows:

$$ERTw = ER_{HCl} + ER_{Cl_2} \times (RfCHCl/RfC_{Cl_2})$$

Where:

ERLTtw is the annual average HCl toxicity-weighted emission rate (HCl-equivalent emission rate) considering long-term exposures, lb/hr

ER<sub>HCl</sub> is the emission rate of HCl in lbs/hr

ER<sub>Cl<sub>2</sub></sub> is the emission rate of chlorine in lbs/hr



RfCHCl is the reference concentration of HCl  
 RfC Cl<sub>2</sub> is the reference concentration of chlorine

(3) 1-hour average rates. You must calculate 1-hour average toxicity-weighted HCl-equivalent emission rates for each combustor as follows:

$$ERST_{tw} = ER_{HCl} + ER_{Cl_2} \times (aREL_{HCl}/aREL_{Cl_2})$$

Where:

ERST<sub>tw</sub> is the 1-hour average HCl toxicity-weighted emission rate (HCl-equivalent emission rate) considering 1-hour (short-term) exposures, lb/hr

ER<sub>HCl</sub> is the emission rate of HCl in lbs/hr

ER Cl<sub>2</sub> is the emission rate of chlorine in lbs/hr

aREL<sub>HCl</sub> is the 1-hour Reference Exposure Level of HCl

aREL Cl<sub>2</sub> is the 1-hour Reference Exposure Level of chlorine

(4) You must use the RfC values for HCl/Cl<sub>2</sub> found at <http://epa.gov/ttn/atw/toxsource/summary.html>.

(5) You must use the aREL values for HCl/Cl<sub>2</sub> found at [http://www.oehha.ca.gov/air/acute\\_rels/acutereel.html](http://www.oehha.ca.gov/air/acute_rels/acutereel.html).

(6) Cl<sub>2</sub> HCl ratios

(i) Ratio for calculating annual average HCl-equivalent emission rates.

(A) To calculate the annual average HCl-equivalent emission rate (lb/hr) for each combustor, you must apportion the total chlorine emission concentration (ppmv Cl<sup>-</sup> equivalent) between HCl and chlorine according to the historical average Cl<sub>2</sub>/HCl volumetric ratio for all regulatory compliance tests.

(B) You must calculate HCl and Cl<sub>2</sub> emission rates (lb/hr) using the apportioned emission concentrations and the gas flow rate and other parameters from the most recent regulatory compliance test.

(C) You must calculate the annual average HCl-equivalent emission rate using these HCl and Cl<sub>2</sub> emission rates and the equation in paragraph (b) (2) of this section.

(ii) Ratio for calculating 1-hour average HCl-equivalent emission rates.

(A) To calculate the 1-hour average HCl-equivalent emission rate for each combustor as a criterion for you to determine under paragraph (d) of this section if an hourly rolling average feed rate limit on total chlorine and chloride may be waived, you must apportion the total chlorine emission concentration (ppmv Cl<sup>-</sup> equivalent) between HCl and chlorine according to the historical highest Cl<sub>2</sub>/HCl volumetric ratio for all regulatory compliance tests.

(B) You must calculate HCl and Cl<sub>2</sub> emission rates (lb/hr) using the apportioned emission concentrations and the gas flow rate and other parameters from the most recent regulatory compliance test.

(C) You must calculate the 1-hour average HCl-equivalent emission rate using the se HCl and Cl<sub>2</sub> emission rates and the equation in paragraph (b) (3) of this section.

(iii) Ratios for new sources.

(A) You must use engineering information to estimate the Cl<sub>2</sub>/HCl volumetric ratio for a new source for the initial eligibility demonstration.

(B) You must use the Cl<sub>2</sub>/HCl volumetric ratio demonstrated during the initial CPT to demonstrate in the NOC that your HCl-equivalent emission rate does not exceed your HCl-equivalent emission rate limit.

(C) When approving the test plan for the initial CPT, the permitting authority will establish a periodic testing requirement, such as every 3 months for 1 year, to establish a record of representative Cl<sub>2</sub>/HCl volumetric ratios.

(1) You must revise your HCl-equivalent emission rates and HCl-equivalent emission rate limits after each such test using the procedures prescribed in paragraphs (b) (6) (i) and (ii) of this section.

(2) If you no longer are eligible for the health-based compliance alternative, you must notify the permitting authority immediately and either:

(i) Submit a revised eligibility demonstration requesting lower HCl-equivalent emission rate limits, establishing lower HCl-equivalent emission rates, and establishing by downward extrapolation lower feed rate limits for total chlorine and chloride; or

(ii) Request a compliance schedule of up to three years to demonstrate compliance with the emission standards under §§ 63.1216, 63.1217, 63.1219, 63.1220, and 63.1221.

(iv) Unrepresentative or inadequate historical Cl<sub>2</sub>/HCl volumetric ratios.

(A) If you believe that the Cl<sub>2</sub>/HCl volumetric ratio for one or more historical regulatory compliance tests is not representative of the current ratio, you may request that the permitting authority allow you to screen those ratios from the analysis of historical ratios.

(B) If the permitting authority believes that too few historical ratios are available to calculate a representative average ratio or establish a maximum ratio, the permitting authority may require you to conduct periodic testing to establish representative ratios.

(v) Updating  $\text{Cl}_2/\text{HCl}$  ratios. You must include the  $\text{Cl}_2/\text{HCl}$  volumetric ratio demonstrated during each performance test in your data base of historical  $\text{Cl}_2/\text{HCl}$  ratios to update the ratios you establish under paragraphs (b)(6)(i) and (ii) of this section for subsequent calculations of the annual average and 1-hour average  $\text{HCl}$ -equivalent emission rates.

(7) Emission rates are capped. The  $\text{HCl}/\text{Cl}_2$  emission rates you use to calculate the  $\text{HCl}$ -equivalent emission rate limit for incinerators, cement kilns, and LWAKs must not result in total chlorine emission concentrations exceeding:

(i) For incinerators that were existing sources on April 19, 1996: 77 ppmV, combined emissions, expressed as  $\text{Cl}^-$  equivalent, dry basis and corrected to 7%  $\text{O}_2$ ;

(ii) For incinerators that are new or reconstructed sources after April 19, 1996: 21 ppmV, combined emissions, expressed as  $\text{Cl}^-$  equivalent, dry basis and corrected to 7%  $\text{O}_2$ ;

(iii) For cement kilns that were existing sources on April 19, 1996: 130 ppmV, combined emissions, expressed as  $\text{Cl}^-$  equivalent, dry basis and corrected to 7%  $\text{O}_2$ ;

(iv) For cement kilns that are new or reconstructed sources after April 19, 1996: 86 ppmV, combined emissions, expressed as  $\text{Cl}^-$  equivalent, dry basis and corrected to 7%  $\text{O}_2$ ;

(v) For LWAKs that were existing sources on April 19, 1996: 600 ppmV, combined emissions, expressed as  $\text{Cl}^-$  equivalent, dry basis and corrected to 7%  $\text{O}_2$ ;

(vi) For LWAKs that are new or reconstructed sources after April 19, 1996: 600 ppmV, combined emissions, expressed as  $\text{Cl}^-$  equivalent, dry basis and corrected to 7%  $\text{O}_2$ .

#### (c) Eligibility demonstration

##### (1) General.

(i) You must perform an eligibility demonstration to determine whether the total chlorine emission rates you select for each on-site HWC meet the national exposure standards using either a look-up table analysis prescribed by paragraph (c)(3) of this section, or a site-specific compliance demonstration prescribed by paragraph (c)(4) of this section.

(ii) You must also determine in your eligibility demonstration whether each combustor may exceed the 1-hour HCl-equivalent emission rate limit absent an hourly rolling average limit on the feed rate of total chlorine and chloride, as provided by paragraph (d) of this section.

(2) Definition of eligibility.

(i) Eligibility for the risk-based total chlorine standard is determined by comparing the annual average HCl-equivalent emission rate for the total chlorine emission rate you select for each combustor to the annual average HCl-equivalent emission rate limit.

(ii) The annual average HCl-equivalent emission rate limit ensures that the Hazard Index for chronic exposure from HCl and chlorine emissions from all on-site HWCs is less than or equal to 1.0, rounded to the nearest tenths decimal place (0.1), for the actual individual most exposed to the facility's emissions, considering off-site locations where people reside and where people congregate for work, school, or recreation.

(iii) Your facility is eligible for the health-based compliance alternative for total chlorine if either:

(A) The annual average HCl-equivalent emission rate for each on-site HWC is below the appropriate value in the look-up table determined under paragraph (c) (3) of this section; or

(B) The annual average HCl-equivalent emission rate for each on-site HWC is below the annual average HCl-equivalent emission rate limit you calculate based on a site-specific compliance demonstration under paragraph (c) (4) of this section.

(3) Look-up table analysis. Look-up tables for the eligibility demonstration are provided as Tables 1 and 2 to this section.

(i) Table 1 presents annual average HCl-equivalent emission rate limits for sources located in flat terrain. For purposes of this analysis, flat terrain is terrain that rises to a level not exceeding one half the stack height within a distance of 50 stack heights.

(ii) Table 2 presents annual average HCl-equivalent emission rate limits for sources located in simple elevated terrain. For purposes of this analysis, simple elevated terrain is terrain that rises to a level exceeding one half the stack height, but that does not exceed the stack height, within a distance of 50 stack heights.

(iii) To determine the annual average HCl-equivalent emission rate limit for a source from the look-up table, you must use the stack height and stack diameter for your HWCs and the distance between the stack and the property boundary.

(iv) If any of these values for stack height, stack diameter, and distance to nearest property boundary do not match the exact values in the look-up table, you must use the next lowest table value.

(v) Adjusted HCl-equivalent emission rate limit for multiple on-site combustors.

(A) If you have more than one HWC on site, the sum across all HWCs of the ratio of the adjusted HCl-equivalent emission rate limit to the HCl-equivalent emission rate limit provided by Tables 1 or 2 cannot exceed 1.0, according to the following equation:

$$\sum_{i=1}^n \frac{\text{HCl-Equivalent Emission Rate Limit Adjusted}_i}{\text{HCl-Equivalent Emission Rate Limit Table}_i} \leq 1.0$$

Where:

$i$  = number of on-site HWCs;

HCl-Equivalent Emission Rate Limit Adjusted $_i$  means the apportioned, allowable HCl-equivalent emission rate limit for combustor  $i$ , and HCl-Equivalent Emission Rate Limit Table $_i$  means the HCl-equivalent emission rate limit from Table 1 or 2 to § 63.1215 for combustor  $i$ .

(B) The adjusted HCl-equivalent emission rate limit becomes the HCl-equivalent emission rate limit.

(4) site-specific compliance demonstration.

(i) You may use any scientifically-accepted peer-reviewed risk assessment methodology for your site-specific compliance demonstration to calculate an annual average HCl-equivalent emission rate limit for each on-site HWC. An example of one approach for performing the demonstration for air toxics can be found in the EPA's "Air Toxics Risk Assessment Reference Library, Volume 2, Site-Specific Risk Assessment Technical Resource Document," which may be obtained through the EPA's Air Toxics Web site at [http://www.epa.gov/ttn/fera/risk\\_atra\\_main.html](http://www.epa.gov/ttn/fera/risk_atra_main.html).

(ii) The annual average HCl-equivalent emission rate limit is the HCl-equivalent emission rate that ensures that the Hazard Index associated with maximum annual average exposures is not greater than 1.0 rounded to the nearest tenths decimal place (0.1).

(iii) To determine the annual average HCl-equivalent emission rate limit, your site-specific compliance demonstration must, at a minimum:

(A) Estimate long-term inhalation exposures through the estimation of annual or multi-year average ambient concentrations;

(B) Estimate the inhalation exposure for the actual individual most exposed to the facility's emissions from HWCs, considering off-site locations where people reside and where people congregate for work, school, or recreation;

(C) Use site-specific, quality-assured data wherever possible;

(D) Use health-protective default assumptions wherever site-specific data are not available, and:

(E) Contain adequate documentation of the data and methods used for the assessment so that it is transparent and can be reproduced by an experienced risk assessor and emissions measurement expert.

(iv) Your site-specific compliance demonstration need not:

(A) Assume any attenuation of exposure concentrations due to the penetration of outdoor pollutants into indoor exposure areas;

(B) Assume any reaction or deposition of the emitted pollutants during transport from the emission point to the point of exposure.

(d) Assurance that the 1-hour HCl-equivalent emission rate limit will not be exceeded. To ensure that the 1-hour HCl-equivalent emission rate limit will not be exceeded when complying with the annual average HCl-equivalent emission rate limit, you must establish a 1-hour average HCl-equivalent emission rate for each combustor, establish a 1-hour average HCl-equivalent emission rate limit for each combustor, and consider site-specific factors including prescribed criteria to determine if the 1-hour average HCl-equivalent emission rate limit may be exceeded absent an hourly rolling average limit on the feed rate of total chlorine and chloride. If the 1-hour average HCl-equivalent emission rate limit may be exceeded, you must establish an hourly rolling average feed rate limit on total chlorine as provided by paragraph (f)(3) of this section.

(1) 1-hour average HCl-equivalent emission rate. You must calculate the 1-hour average HCl-equivalent emission rate from the total chlorine emission concentration you select for each source as prescribed in paragraph (b)(6)(ii)(C) of this section.

(2) 1-hour average HCl-equivalent emission rate limit. You must establish the 1-hour average HCl-equivalent emission rate limit for each affected source using either a look-up table analysis or site-specific analysis:

(i) Look-up table analysis. Look-up tables are provided for 1-hour average HCl-equivalent emission rate limits as Table 3 and Table 4 to this section. Table 3 provides limits for facilities located in flat terrain. Table 4 provides limits for facilities located in simple elevated terrain. You must use the Tables to establish 1-hour average HCl-equivalent emission rate limits as prescribed in paragraphs (c)(3)(iii) through (c)(3)(v) of this section for annual average HCl-equivalent emission rate limits.

(ii) site-specific analysis. The 1-hour average HCl-equivalent emission rate limit is the HCl-equivalent emission rate that ensures that the Hazard Index associated with maximum 1-hour average exposures is not greater than 1.0 rounded to the nearest tenths decimal place (0.1). You must follow the risk assessment procedures under paragraph (c)(4) of this section to estimate short-term inhalation exposures through the estimation of maximum 1-hour average ambient concentrations.

(3) Criteria for determining whether the 1-hour HCl-equivalent emission rate may be exceeded absent an hourly rolling average limit on the feed rate of total chlorine and chloride. An hourly rolling average feed rate limit on total chlorine and chloride is waived if you determine considering the criteria listed below that the long-term feed rate limit (and averaging period) established under paragraph (c)(4)(i) of this section will also ensure that the 1-hour average HCl-equivalent emission rate will not exceed the 1-hour average HCl-equivalent emission rate limit you calculate for each combustor.

(i) The ratio of the 1-hour average HCl-equivalent emission rate based on the total chlorine emission rate you select for each HWC to the 1-hour average HCl-equivalent emission rate limit for the combustor; and

(ii) The potential for the source to vary total chlorine and chloride feed rates substantially over the averaging period for the feed rate limit established under paragraph (c)(4)(i) of this section.

#### (e) Review and approval of eligibility demonstrations

##### (1) Content of the eligibility demonstration

(i) General. The eligibility demonstration must include the following information, at a minimum:

(A) Identification of each HWC combustion gas emission point (e.g., generally, the flue gas stack);

(B) The maximum and average capacity at which each combustor will operate, and the maximum rated capacity for each combustor, using the metric of stack gas volume (under both actual and standard conditions) emitted per unit of time, as well as any other metric that is appropriate for the combustor (e.g., mmBTU/hr heat input for boilers; tons of dry raw material feed/hour for cement kilns);

(C) Stack parameters for each combustor, including, but not limited to stack height, stack diameter, stack gas temperature, and stack gas exit velocity;

(D) Plot plan showing all stack emission points, nearby residences and property boundary line;

(E) Identification of any stack gas control devices used to reduce emissions from each combustor;

(F) Identification of the RfC values used to calculate annual average HCl-equivalent emission rates and the aREL values used to calculate 1-hour average HCl-equivalent emission rates;

(G) Calculations used to determine the annual average and 1-hour average HCl-equivalent emission rates and rate limits, including calculation of the  $\text{Cl}_2/\text{HCl}$  ratios as prescribed by paragraph (b)(6) of this section;

(ii) Additional content to implement the annual average HCl-equivalent emission rate limit. You must include the following in your eligibility demonstration to implement the annual average HCl-equivalent emission rate limit:

(A) For incinerators, cement kilns, and LWAKs, calculations to confirm that the annual average HCl-equivalent emission rate that you calculate from the total chlorine emission rate you select for each combustor does not exceed the limits provided by paragraph (b)(7) of this section;

(B) Comparison of the annual average HCl-equivalent emission rate limit for each combustor to the annual average HCl-equivalent emission rate for the total chlorine emission rate you select for each combustor;

(C) The annual average HCl-equivalent emission rate limit for each HWC, and the limits on operating parameters required under paragraph (g)(1) of this section;

(D) Determination of the long-term chlorine feed rate limit, including the total chlorine SRE for sources that establish an (up to) annual rolling average feed rate limit under paragraph (g)(2)(ii) of this section;

(iii) Additional content to implement the 1-hour average HCl-equivalent emission rate limit. You must include the following in your eligibility demonstration to implement the 1-hour average HCl-equivalent emission rate limit:

(A) Determination of whether the combustor may exceed the 1-hour HCl-equivalent emission rate limit absent an hourly rolling average chlorine feed rate limit, including:

(1) Determination of the 1-hour average HCl-equivalent emission rate from the total chlorine emission rate you select for the combustor;

(2) Determination of the 1-hour average HCl-equivalent emission rate limit using either look-up Tables 3 and 4 to this section or site-specific risk analysis;



(3) Determination of the ratio of the 1-hour average HCl-equivalent emission rate to the 1-hour average HCl-equivalent emission rate limit for the combustor; and

(4) The potential for the source to vary total chlorine and chloride feed rates substantially over the averaging period for the long-term feed rate limit established under paragraphs (g)(2)(i) and (g)(2)(ii) of this section; and

(B) Determination of the hourly rolling average chlorine feed rate limit, including the total chlorine SRE.

(iv) Additional content of a look-up table demonstration. If you use the look-up table analysis to establish HCl-equivalent emission rate limits, your eligibility demonstration must also contain, at a minimum, the following:

(A) Documentation that the facility is located in either flat or simple elevated terrain; and

(B) For facilities with more than one on-site HWC, documentation that the sum of the ratios for all such combustors of the HCl-equivalent emission rate to the HCl-equivalent emission rate limit does not exceed 1.0.

(v) Additional content of a site-specific compliance demonstration. If you use a site-specific compliance demonstration, your eligibility demonstration must also contain, at a minimum, the following information to support your determination of the annual average HCl-equivalent emission rate limit for each combustor:

(A) Identification of the risk assessment methodology used;

(B) Documentation of the fate and transport model used;

(C) Documentation of the fate and transport model inputs, including the stack parameters listed in paragraph (d)(1)(i)(C) of this section converted to the dimensions required for the model;

(D) As applicable:

(1) Meteorological data;

(2) Building, land use, and terrain data;

(3) Receptor locations and population data, including areas where people congregate for work, school, or recreation; and

(4) Other facility-specific parameters input into the model;

(E) Documentation of the fate and transport model outputs;  
and

(F) Documentation of any exposure assessment and risk characterization calculations.

(2) Review and approval

(i) Existing sources.

(A) If you operate an existing source, you must submit the eligibility demonstration to your permitting authority for review and approval not later than 12 months prior to the compliance date. You must also submit a separate copy of the eligibility demonstration to: U.S. EPA, Risk and Exposure Assessment Group, Emission Standards Division (C404-01), Attn: Group Leader, Research Triangle Park, North Carolina 27711, electronic mail address REAG@epa.gov.

(B) Your permitting authority should notify you of approval or intent to disapprove your eligibility demonstration within 6 months after receipt of the original demonstration, and within 3 months after receipt of any supplemental information that you submit. A notice of intent to disapprove your eligibility demonstration, whether before or after the compliance date, will identify incomplete or inaccurate information or noncompliance with prescribed procedures and specify how much time you will have to submit additional information or to achieve the MACT standards for total chlorine under §§ 63.1216, 63.1217, 63.1219, 63.1220, and 63.1221. If your eligibility demonstration is disapproved, the permitting authority may extend the compliance date of the total chlorine standards to allow you to make changes to the design or operation of the combustor or related systems as quickly as practicable to enable you to achieve compliance with the MACT total chlorine standards.

(C) If your permitting authority has not approved your eligibility demonstration by the compliance date, and has not issued a notice of intent to disapprove your demonstration, you may nonetheless begin complying, on the compliance date, with the HCl-equivalent emission rate limits you present in your eligibility demonstration.

(D) If your permitting authority issues a notice of intent to disapprove your eligibility demonstration after the compliance date, the authority will identify the basis for that notice and specify how much time you will have to submit additional information or to comply with the MACT standards for total chlorine under §§ 63.1216, 63.1217, 63.1219, 63.1220, and 63.1221. The permitting authority may extend the compliance date of the total chlorine standards to allow you to make changes to the design or operation of the combustor or related systems as quickly as practicable to enable you to achieve compliance with the MACT standards for total chlorine.

(ii) New or reconstructed sources.

(A) General. The procedures for review and approval of eligibility demonstrations applicable to existing sources under paragraph (e)(2)(i) of this section also apply to new or reconstructed sources, except that the date you must submit the eligibility demonstration is as prescribed in this paragraph (e)(2)(ii).

(B) If you operate a new or reconstructed source that starts up before April 12, 2007, or a SFB or LFB that is an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP before April 12, 2007, you must either:

(1) Comply with the final total chlorine emission standards under §§ 63.1216, 63.1217, 63.1219, 63.1220, and 63.1221, by October 12, 2005, or upon startup, whichever is later, except for a standard that is more stringent than the standard proposed on April 20, 2004 for your source. If a final standard is more stringent than the proposed standard, you may comply with the proposed standard until October 14, 2008, after which you must comply with the final standard; or

(2) Submit an eligibility demonstration for review and approval under this section by April 12, 2006, and comply with the HCl-equivalent emission rate limits and operating requirements you establish in the eligibility demonstration.

(C) If you operate a new or reconstructed source that starts up on or after April 12, 2007, or a SFB or LFB that is an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP on or after April 12, 2007, you must either:

(1) Comply with the final total chlorine emission standards under §§ 63.1216, 63.1217, 63.1219, 63.1220, and 63.1221 upon startup. If the final standard is more stringent than the standard proposed for your source on April 20, 2004, however, and if you start operations before October 14, 2008, you may comply with the proposed standard until October 14, 2008, after which you must comply with the final standard; or

(2) Submit an eligibility demonstration for review and approval under this section 12 months prior to startup.

#### (f) Testing requirements

(1) General. You must comply with the requirements for comprehensive performance testing under § 63.1207.

(2) SRE.

(i) You must calculate the total chlorine removal efficiency of the combustor during each run of the CPT.

(ii) You must calculate the average SRE as the average of the test run averages.

(iii) If your source does not control emissions of total chlorine, you must assume zero SRE.

(3) Annual average HCl-equivalent emission rate limit. If emissions during the CPT exceed the annual average HCl-equivalent emission rate limit, eligibility for emission limits under this section is not affected. This emission rate limit is an annual average limit even though compliance is based on a 12-hour or (up to) an annual rolling average feed rate limit on total chlorine and chloride because the feed rate limit is also used for compliance assurance for the SVM emission standard

(4) 1-hour average HCl-equivalent emission rate limit. Total chlorine emissions during each run of the CPT cannot exceed the 1-hour average HCl-equivalent emission rate limit.

(5) Test methods.

(i) If you operate a cement kiln or a combustor equipped with a dry acid gas scrubber, you must use EPA Method 320/321 or ASTM D 6735-01, or an equivalent method, to measure HCl, and the back-half (caustic impingers) of Method 26/26A, or an equivalent method, to measure chlorine gas.

(ii) Bromine and sulfur considerations. If you operate an incinerator, boiler, or LWAK and your feedstreams contain bromine or sulfur during the CPT at levels specified under paragraph (e)(2)(ii)(B) of this section, you must use EPA Method 320/321 or ASTM D 6735-01, or an equivalent method, to measure HCl, and Method 26/26A, or an equivalent method, to measure HCl/Cl<sub>2</sub>, and determine your chlorine emissions as follows:

(A) You must determine your chlorine emissions to be the higher of the value measured by Method 26/26A, or an equivalent method, or the value calculated by difference between the combined HCl/Cl<sub>2</sub> levels measured by Method 26/26A, or an equivalent method, and the HCl measurement from EPA Method 320/321 or ASTM D 6735-01, or an equivalent method.

(B) The procedures under paragraph (f)(2)(ii) of this section for determining HCl/Cl<sub>2</sub> emissions apply if you feed bromine or sulfur during the performance test at the levels specified in this paragraph (f)(5)(ii)(B):

(1) If the bromine/chlorine ratio in feedstreams is greater than 5 percent by mass; or

(2) If the sulfur/chlorine ratio in feedstreams is greater than 50 percent by mass.

(g) Monitoring requirements.

(1) General. You must establish and comply with limits on the same operating parameters that apply to sources complying with the MACT standard for total chlorine under § 63.1209(o), except that feed rate limits on total chlorine and chloride must be established according to paragraphs (g)(2) and (g)(3) of this section:

(2) Feed rate limit to ensure compliance with the annual average HCl-equivalent emission rate limit.

(i) For sources subject to the feed rate limit for total chlorine and chloride under § 63.1209(n)(4) to ensure compliance with the SVMs standard:

(A) The feed rate limit (and averaging period) for total chlorine and chloride to ensure compliance with the annual average HCl-equivalent emission rate limit is the same as required by § 63.1209(n)(4), except as provided by paragraph (g)(2)(i)(B) of this section.

(B) The numerical value of the total chlorine and chloride feed rate limit (i.e., not considering the averaging period) you establish under § 63.1209(n)(4) must not exceed the value you calculate as the annual average HCl-equivalent emission rate limit (lb/hr) divided by  $[1 - \text{SRE}]$ , where the SRE is calculated as prescribed by paragraph (f)(2) of this section.

(ii) For sources exempt from the feed rate limit for total chlorine and chloride under § 63.1209(n)(4) because they comply with § 63.1207(m)(2), the feed rate limit for total chlorine and chloride to ensure compliance with the annual average HCl-equivalent emission rate must be established as follows:

(A) You must establish an average period for the feed rate limit that does not exceed an annual rolling average;

(B) The numerical value of the total chlorine and chloride feed rate limit (i.e., not considering the averaging period) must not exceed the value you calculate as the annual average HCl-equivalent emission rate limit (lb/hr) divided by  $[1 - \text{SRE}]$ , where the SRE is calculated as prescribed by paragraph (f)(2) of this section.

(C) You must calculate the initial rolling average as though you had selected a 12-hour rolling average, as provided by paragraph (b)(5)(i) of this section. You must calculate rolling averages thereafter as the average of the available 1-minute values until enough 1-minute values are available to calculate the rolling average period you select. At that time and thereafter, you update the rolling average feed rate each hour with a 60-minute average feed rate.

(3) Feed rate limit to ensure compliance with the 1-hour average HCl-equivalent emission rate limit.

(i) You must establish an hourly rolling average feed rate limit on total chlorine and chloride to ensure compliance with the 1-hour average HCl-equivalent emission rate limit unless you determine that the hourly rolling average feed rate limit is waived under paragraph (d) of this section.

(ii) You must calculate the hourly rolling average feed rate limit for total chlorine and chloride as the 1-hour average HCl-equivalent emission rate limit (lb/hr) divided by  $[1 - \text{SRE}]$ , where the SRE is calculated as prescribed by paragraph (f)(2)(ii) of this section.

#### (h) Changes

(1) Changes over which you have control.

(i) Changes that would affect the HCl-equivalent emission rate limit.

(A) If you plan to change the design, operation, or maintenance of the facility in a manner than would decrease the annual average or 1-hour average HCl-equivalent emission rate limit, you must submit to the permitting authority prior to the change a revised eligibility demonstration documenting the lower emission rate limits and calculations of reduced total chlorine and chloride feed rate limits.

(B) If you plan to change the design, operation, or maintenance of the facility in a manner than would increase the annual average or 1-hour average HCl-equivalent emission rate limit, and you elect to increase your total chlorine and chloride feed rate limits. You must also submit to the permitting authority prior to the change a revised eligibility demonstration documenting the increased emission rate limits and calculations of the increased feed rate limits prior to the change.

(ii) Changes that could affect SRE.

(A) If you plan to change the design, operation, or maintenance of the combustor in a manner than could decrease the SRE, you are subject to the requirements of § 63.1206(b)(5) for conducting a performance test to reestablish the combustor's SRE and you must submit a revised eligibility demonstration documenting the lower SRE and the reduced feed rate limits on total chlorine and chloride.

(B) If you plan to change the design, operation, or maintenance of the combustor in a manner than could increase the SRE, and you elect to document the increased SRE to establish higher feed rate limits on total chlorine and chloride, you are subject to the requirements of § 63.1206(b)(5) for conducting a performance test to reestablish the combustor's SRE. You must also submit to the permitting authority a revised eligibility demonstration documenting

the higher SRE and the increased feed rate limits on total chlorine and chloride.

(2) Changes over which you do not have control that may decrease the HCl-equivalent emission rate limits. These requirements apply if you use a site-specific risk assessment under paragraph (c)(4) of this section to demonstrate eligibility for the health-based limits.

(i) Proactive review. You must review the documentation you use in your eligibility demonstration every five years from the date of the CPT and submit for review and approval with the CPT plan either a certification that the information used in your eligibility demonstration has not changed in a manner that would decrease the annual average or 1-hour average HCl-equivalent emission rate limit, or a revised eligibility demonstration.

(ii) Reactive review. If in the interim between your CPTs you have reason to know of changes that would decrease the annual average or 1-hour average HCl-equivalent emission rate limit, you must submit a revised eligibility demonstration as soon as practicable but not more frequently than annually.

(iii) Compliance schedule. If you determine that you cannot demonstrate compliance with a lower annual average HCl-equivalent emission rate limit during the CPT because you need additional time to complete changes to the design or operation of the source, you may request that the permitting authority grant you additional time to make those changes as quickly as practicable.

Table 1 of 63.1215

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[70 FR 59565, Oct. 12, 2005]

## **Emissions Standards and Operating Limits for SFBs, LFBs, and Hydrochloric Acid Production Furnaces**

### **§ 63.1216 What are the standards for SFBs that burn hazardous waste?**

(a) Emission limits for existing sources. You must not discharge or cause combustion gases to be emitted into the atmosphere that contain:

(1) For dioxins and furans, either CO or hydrocarbon emissions in excess of the limits provided by paragraph (a)(5) of this section;

(2) Hg in excess of 11 \*g/dscm corrected to 7% O<sub>2</sub>;

(3) For Cd and Pb combined, except for an area source as defined under § 63.2, emissions in excess of 180 \*g/dscm, corrected to 7% O<sub>2</sub>;

(4) For As, Be, and Cr combined, except for an area source as defined under § 63.2, emissions in excess of 380 \*g/dscm, corrected to 7% O<sub>2</sub>;

(5) For CO and hydrocarbons, either:

(i) CO in excess of 100 ppmV, over an hourly rolling average (monitored continuously with a CEMS), dry basis and corrected to 7% O<sub>2</sub>. If you elect to comply with this CO standard rather than the hydrocarbon standard under paragraph (a)(5)(ii) of this section, you must also document that, during the DRE test runs or their equivalent as provided by § 63.1206(b)(7), hydrocarbons do not exceed 10 ppmV during those runs, over an hourly rolling average (monitored continuously with a CEMS), dry basis, corrected to 7% O<sub>2</sub>, and reported as propane; or

(ii) Hydrocarbons in excess of 10 ppmV, over an hourly rolling average (monitored continuously with a CEMS), dry basis, corrected to 7% O<sub>2</sub>, and reported as propane;

(6) For HCl/Cl<sub>2</sub>, except for an area source as defined under § 63.2, emissions in excess of 440 ppmV, expressed as a Cl<sup>-</sup> equivalent, dry basis and corrected to 7% O<sub>2</sub>; and

(7) For PM, except for an area source as defined under § 63.2 or as provided by paragraph (e) of this section, emissions in excess of 68 mg/dscm corrected to 7% O<sub>2</sub>.

(b) Emission limits for new sources. You must not discharge or cause combustion gases to be emitted into the atmosphere that contain:

(1) For dioxins and furans, either CO or hydrocarbon emissions in excess of the limits provided by paragraph (b)(5) of this section;

(2) Hg in excess of 11 \*g/dscm corrected to 7% O<sub>2</sub>;

(3) For Cd and Pb combined, except for an area source as defined under § 63.2, emissions in excess of 180 \*g/dscm, corrected to 7% O<sub>2</sub>;

(4) For As, Be, and Cr combined, except for an area source as defined under § 63.2, emissions in excess of 190 \*g/dscm, corrected to 7% O<sub>2</sub>;

(5) For CO and hydrocarbons, either:

(i) CO in excess of 100 ppmV, over an hourly rolling average (monitored continuously with a CEMS), dry basis and corrected to 7% O<sub>2</sub>. If you elect to comply with this CO standard rather than the hydrocarbon standard under paragraph (b)(5)(ii) of this section, you must also document that, during the DRE test runs or their equivalent as provided by § 63.1206(b)(7), hydrocarbons do not exceed 10 ppmV during those runs, over an hourly rolling average (monitored



continuously with a CEMS), dry basis, corrected to 7% O<sub>2</sub>, and reported as propane; or

(ii) Hydrocarbons in excess of 10 ppmV, over an hourly rolling average (monitored continuously with a CEMS), dry basis, corrected to 7% O<sub>2</sub>, and reported as propane;

(6) For HCl/Cl<sub>2</sub>, except for an area source as defined under § 63.2, emissions in excess of 73 ppmV, expressed as a Cl<sup>-</sup> equivalent, dry basis and corrected to 7% O<sub>2</sub>; and

(7) For PM, except for an area source as defined under § 63.2 or as provided by paragraph (e) of this section, emissions in excess of 34 mg/dscm corrected to 7% O<sub>2</sub>.

(c) DRE standard.

(1) 99.99% DRE. Except as provided in paragraph (c)(2) of this section, you must achieve a DRE of 99.99% for each POHC designated under paragraph (c)(3) of this section. You must calculate DRE for each POHC from the following equation:

$$\text{DRE} = [1 - (W_{\text{out}} / W_{\text{in}})] \times 100\%$$

Where:

$W_{\text{in}}$  = mass feed rate of one POHC in a waste feedstream; and

$W_{\text{out}}$  = mass emission rate of the same POHC present in exhaust emissions prior to release to the atmosphere.

(2) 99.9999% DRE. If you burn the dioxin-listed hazardous wastes F020, F021, F022, F023, F026, or F027 (see § 261.31 of this chapter), you must achieve a DRE of 99.9999% for each POHC that you designate under paragraph (c)(3) of this section. You must demonstrate this DRE performance on POHCs that are more difficult to incinerate than tetra-, penta-, and hexaCDDs and dibenzofurans. You must use the equation in paragraph (c)(1) of this section to calculate DRE for each POHC. In addition, you must notify the Administrator of your intent to incinerate hazardous wastes F020, F021, F022, F023, F026, or F027.

(3) POHCs.

(i) You must treat the POHCs in the waste feed that you specify under paragraph (c)(3)(ii) of this section to the extent required by paragraphs (c)(1) and (c)(2) of this section.

(ii) You must specify one or more POHCs that are representative of the most difficult to destroy organic compounds in your hazardous waste feedstream. You must base this specification on the degree of difficulty of incineration of the organic constituents in the hazardous waste and on their concentration or mass in the hazardous waste feed, considering the results of hazardous waste analyses or other data and information.

(d) Significant figures. The emission limits provided by paragraphs (a) and (b) of this section are presented with two significant figures. Although you must perform intermediate calculations using at least three significant figures, you may round the resultant emission levels to two significant figures to document compliance.

(e) Alternative to the PM standard.

(1) General. In lieu of complying with the PM standards of this section, you may elect to comply with the following alternative metal emission control requirement:

(2) Alternative metal emission control requirements for existing SFBs.

(i) You must not discharge or cause combustion gases to be emitted into the atmosphere that contain Cd, Pb, and Se in excess of 180 \*g/dscm, combined emissions, corrected to 7% O<sub>2</sub>; and,

(ii) You must not discharge or cause combustion gases to be emitted into the atmosphere that contain Sb, As, Be, Cr, cobalt, Mn, and Ni in excess of 380 \*g/dscm, combined emissions, corrected to 7% O<sub>2</sub>.

(3) Alternative metal emission control requirements for new SFBs.

(i) You must not discharge or cause combustion gases to be emitted into the atmosphere that contain Cd, Pb, and Se in excess of 180 \*g/dscm, combined emissions, corrected to 7% O<sub>2</sub>; and,

(ii) You must not discharge or cause combustion gases to be emitted into the atmosphere that contain Sb, As, Be, Cr, cobalt, Mn, and Ni in excess of 190 \*g/dscm, combined emissions, corrected to 7% O<sub>2</sub>.

(4) Operating limits. SVM and LVM OPLs must be established to ensure compliance with the alternative emission limitations described in paragraphs (e) (2) and (e) (3) of this section pursuant to § 63.1209(n), except that SVM feed rate limits apply to Pb, Cd, and Se, combined, and LVM feed rate limits apply to As, Be, Cr, Sb, cobalt, Mn, and Ni, combined.

(f) Elective standards for area sources. Area sources as defined under § 63.2 are subject to the standards for Cd and Pb, the standards for As, Be, and Cr, the standards for HCl/Cl<sub>2</sub>, and the standards for PM under this section if they elect under § 266.100(b) (3) of this chapter to comply with those standards in lieu of the standards under 40 CFR §§ 266.105, 266.106, and 266.107 to control those pollutants.

[70 FR 59565, Oct. 12, 2005]

**§ 63.1217 What are the standards for LFBs that burn hazardous waste?**

(a) Emission limits for existing sources. You must not discharge or cause combustion gases to be emitted into the atmosphere that contain:

(1)

(i) Dioxins and furans in excess of 0.40 ng TEQ/dscm, corrected to 7% O<sub>2</sub>, for LFBs equipped with a dry air pollution control system; or

(ii) Either CO or hydrocarbon emissions in excess of the limits provided by paragraph (a) (5) of this section for sources not equipped with a dry air pollution control system;

(iii) A source equipped with a wet air pollution control system followed by a dry air pollution control system is not considered to be a dry air pollution control system, and a source equipped with a dry air pollution control system followed by a wet air pollution control system is considered to be a dry air pollution control system for purposes of this emission limit;

(2) For Hg, except as provided for in paragraph (a) (2) (iii) of this section:

(i) When you burn hazardous waste with an as-fired heating value less than 10,000 Btu/lb, emissions in excess of 19 \*g/dscm, corrected to 7% O<sub>2</sub>, on an (not-to-exceed) annual averaging period;

(ii) When you burn hazardous waste with an as-fired heating value 10,000 Btu/lb or greater, emissions in excess of  $4.2 \times 10^{-5}$  lbs Hg attributable to the hazardous waste per mmBTU heat input from the hazardous waste on an (not-to-exceed) annual averaging period;

(iii) The boiler operated by Diversified Scientific Services, Inc. with EPA identification number TND982109142, and which burns radioactive waste mixed with hazardous waste, must comply with the Hg emission standard under § 63.1219(a) (2);

(3) For Cd and Pb combined, except for an area source as defined under § 63.2,

(i) When you burn hazardous waste with an as-fired heating value less than 10,000 Btu/lb, emissions in excess of 150 \*g/dscm, corrected to 7% O<sub>2</sub>, on an (not-to-exceed) annual averaging period;

(ii) When you burn hazardous waste with an as-fired heating value of 10,000 Btu/lb or greater, emissions in excess of  $8.2 \times 10^{-5}$  lbs combined Cd and Pb emissions attributable to the hazardous waste per mmBTU heat input from the hazardous waste on an (not-to-exceed) annual averaging period;

(4) For Cr, except for an area source as defined under § 63.2:

(i) When you burn hazardous waste with an as-fired heating value less than 10,000 Btu/lb, emissions in excess of 370 \*g/dscm, corrected to 7% O<sub>2</sub>;

(ii) When you burn hazardous waste with an as-fired heating value of 10,000 Btu/lb or greater, emissions in excess of  $1.3 \times 10^{-4}$  lbs Cr emissions attributable to the hazardous waste per mmBTU heat input from the hazardous waste;

(5) For CO and hydrocarbons, either:

(i) CO in excess of 100 ppmV, over an hourly rolling average (monitored continuously with a CEMS), dry basis and corrected to 7% O<sub>2</sub>. If you elect to comply with this CO standard rather than the hydrocarbon standard under paragraph (a)(5)(ii) of this section, you must also document that, during the DRE test runs or their equivalent as provided by § 63.1206(b)(7), hydrocarbons do not exceed 10 ppmV during those runs, over an hourly rolling average (monitored continuously with a CEMS), dry basis, corrected to 7% O<sub>2</sub>, and reported as propane; or

(ii) Hydrocarbons in excess of 10 ppmV, over an hourly rolling average (monitored continuously with a CEMS), dry basis, corrected to 7% O<sub>2</sub>, and reported as propane;

(6) For HCl/Cl<sub>2</sub>, except for an area source as defined under § 63.2:

(i) When you burn hazardous waste with an as-fired heating value less than 10,000 Btu/lb, emissions in excess of 31 ppmV, combined emissions, expressed as a Cl<sup>-</sup> equivalent, dry basis and corrected to 7% O<sub>2</sub>;

(ii) When you burn hazardous waste with an as-fired heating value of 10,000 Btu/lb or greater, emissions in excess of  $5.08 \times 10^{-2}$  lbs combined emissions of HCl/Cl<sub>2</sub> attributable to the hazardous waste per mmBTU heat input from the hazardous waste;

(7) For PM, except for an area source as defined under § 63.2 or as provided by paragraph (e) of this section, emissions in excess of 80 mg/dscm corrected to 7% O<sub>2</sub>.

(b) Emission limits for new sources. You must not discharge or cause combustion gases to be emitted into the atmosphere that contain:

(1)

(i) Dioxins and furans in excess of 0.40 ng TEQ/dscm, corrected to 7% O<sub>2</sub>, for LFBs equipped with a dry air pollution control system; or

(ii) Either CO or hydrocarbon emissions in excess of the limits provided by paragraph (b) (5) of this section for sources not equipped with a dry air pollution control system;

(iii) A source equipped with a wet air pollution control system followed by a dry air pollution control system is not considered to be a dry air pollution control system, and a source equipped with a dry air pollution control system followed by a wet air pollution control system is considered to be a dry air pollution control system for purposes of this emission limit;

(2) For Hg:

(i) When you burn hazardous waste with an as-fired heating value less than 10,000 Btu/lb, emissions in excess of 6.8 \*g/dscm, corrected to 7% O<sub>2</sub>, on an (not-to-exceed) annual averaging period;

(ii) When you burn hazardous waste with an as-fired heating value of 10,000 Btu/lb or greater, emissions in excess of  $1.2 \times 10^{-6}$  lbs Hg emissions attributable to the hazardous waste per mmBTU heat input from the hazardous waste on an (not-to-exceed) annual averaging period;

(3) For Cd and Pb combined, except for an area source as defined under § 63.2:

(i) When you burn hazardous waste with an as-fired heating value less than 10,000 Btu/lb, emissions in excess of 78 \*g/dscm, corrected to 7% O<sub>2</sub>, on an (not-to-exceed) annual averaging period;

(ii) When you burn hazardous waste with an as-fired heating value greater than or equal to 10,000 Btu/lb, emissions in excess of  $6.2 \times 10^{-6}$  lbs combined Cd and Pb emissions attributable to the hazardous waste per mmBTU heat input from the hazardous waste on an (not-to-exceed) annual averaging period;

(4) For Cr, except for an area source as defined under § 63.2:

(i) When you burn hazardous waste with an as-fired heating value less than 10,000 Btu/lb, emissions in excess of 12 \*g/dscm, corrected to 7% O<sub>2</sub>;

(ii) When you burn hazardous waste with an as-fired heating value of 10,000 Btu/lb or greater, emissions in excess of  $1.4 \times 10^{-5}$  lbs Cr emissions attributable to the hazardous waste per mmBTU heat input from the hazardous waste;

(5) For CO and hydrocarbons, either:

(i) CO in excess of 100 ppmV, over an hourly rolling average (monitored continuously with a CEMS), dry basis and corrected to 7% O<sub>2</sub>. If you elect to comply with this CO standard rather than the

hydrocarbon standard under paragraph (b)(5)(ii) of this section, you must also document that, during the DRE test runs or their equivalent as provided by § 63.1206(b)(7), hydrocarbons do not exceed 10 ppmV during those runs, over an hourly rolling average (monitored continuously with a CEMS), dry basis, corrected to 7% O<sub>2</sub>, and reported as propane; or

(ii) Hydrocarbons in excess of 10 ppmV, over an hourly rolling average (monitored continuously with a CEMS), dry basis, corrected to 7% O<sub>2</sub>, and reported as propane;

(6) For HCl/Cl<sub>2</sub>, except for an area source as defined under § 63.2:

(i) When you burn hazardous waste with an as-fired heating value less than 10,000 Btu/lb, emissions in excess of 31 ppmV, combined emissions, expressed as a Cl<sup>-</sup> equivalent, dry basis and corrected to 7% O<sub>2</sub>;

(ii) When you burn hazardous waste with an as-fired heating value of 10,000 Btu/lb or greater, emissions in excess of  $5.08 \times 10^{-2}$  lbs combined emissions of HCl/Cl<sub>2</sub> attributable to the hazardous waste per mmBTU heat input from the hazardous waste;

(7) For PM, except for an area source as defined under § 63.2 or as provided by paragraph (e) of this section, emissions in excess of 20 mg/dscm corrected to 7% O<sub>2</sub>.

(c) DRE standard.

(1) 99.99% DRE. Except as provided in paragraph (c)(2) of this section, you must achieve a DRE of 99.99% for each POHC designated under paragraph (c)(3) of this section. You must calculate DRE for each

$$\text{DRE} = [1 - (W_{\text{out}} / W_{\text{in}})] \times 100\%$$

Where:

$W_{\text{in}}$  = mass feed rate of one POHC in a waste feedstream; and  
 $W_{\text{out}}$  = mass emission rate of the same POHC present in exhaust emissions prior to release to the atmosphere.

(2) 99.9999% DRE. If you burn the dioxin-listed hazardous wastes F020, F021, F022, F023, F026, or F027 (see § 261.31 of this chapter), you must achieve a DRE of 99.9999% for each POHC that you designate under paragraph (c)(3) of this section. You must demonstrate this DRE performance on POHCs that are more difficult to incinerate than tetra-, penta-, and hexaCDDs and dibenzofurans. You must use the equation in paragraph (c)(1) of this section to calculate DRE for each POHC. In addition, you must notify the Administrator of your intent to incinerate hazardous wastes F020, F021, F022, F023, F026, or F027.

(3) POHCs.

(i) You must treat the POHCs in the waste feed that you specify under paragraph (c)(3)(ii) of this section to the extent required by paragraphs (c)(1) and (c)(2) of this section.

(ii) You must specify one or more POHCs that are representative of the most difficult to destroy organic compounds in your hazardous waste feedstream. You must base this specification on the degree of difficulty of incineration of the organic constituents in the hazardous waste and on their concentration or mass in the hazardous waste feed, considering the results of hazardous waste analyses or other data and information.

(d) Significant figures. The emission limits provided by paragraphs (a) and (b) of this section are presented with two significant figures. Although you must perform intermediate calculations using at least three significant figures, you may round the resultant emission levels to two significant figures to document compliance.

(e) Alternative to the PM standard.

(1) General. In lieu of complying with the PM standards of this section, you may elect to comply with the following alternative metal emission control requirement:

(2) Alternative metal emission control requirements for existing LFBs.

(i) When you burn hazardous waste with a heating value less than 10,000 Btu/lb:

(A) You must not discharge or cause combustion gases to be emitted into the atmosphere that contain Cd, Pb, and Se, combined, in excess of 150 \*g/dscm, corrected to 7% O<sub>2</sub>; and

(B) You must not discharge or cause combustion gases to be emitted into the atmosphere that contain Sb, As, Be, Cr, cobalt, Mn, and Ni, combined, in excess of 370 \*g/dscm, corrected to 7% O<sub>2</sub>;

(ii) When you burn hazardous waste with a heating value of 10,000 Btu/lb or greater:

(A) You must not discharge or cause combustion gases to be emitted into the atmosphere that contain in excess of  $8.2 \times 10^{-5}$  lbs combined emissions of Cd, Pb, and Se attributable to the hazardous waste per mmBTU heat input from the hazardous waste; and

(B) You must not discharge or cause combustion gases to be emitted into the atmosphere that contain either in excess of  $1.3 \times 10^{-4}$  lbs combined emissions of Sb, As, Be, Cr, cobalt, Mn, and Ni attributable to the hazardous waste per mmBTU heat input from the hazardous waste;

(3) Alternative metal emission control requirements for new LFBs.

(i) When you burn hazardous waste with a heating value less than 10,000 Btu/lb:

(A) You must not discharge or cause combustion gases to be emitted into the atmosphere that contain Cd, Pb, and Se, combined, in excess of 78 \*g/dscm, corrected to 7% O<sub>2</sub>; and

(B) You must not discharge or cause combustion gases to be emitted into the atmosphere that contain Sb, As, Be, Cr, cobalt, Mn, and Ni, combined, in excess of 12 \*g/dscm, corrected to 7% O<sub>2</sub>;

(ii) When you burn hazardous waste with a heating value greater than or equal to 10,000 Btu/lb:

(A) You must not discharge or cause combustion gases to be emitted into the atmosphere that contain in excess of  $6.2 \times 10^{-6}$  lbs combined emissions of Cd, Pb, and Se attributable to the hazardous waste per mmBTU heat input from the hazardous waste; and

(B) You must not discharge or cause combustion gases to be emitted into the atmosphere that contain either in excess of  $1.4 \times 10^{-5}$  lbs combined emissions of Sb, As, Be, Cr, cobalt, Mn, and Ni attributable to the hazardous waste per mmBTU heat input from the hazardous waste;

(4) Operating limits. SVM and LVM OPLs must be established to ensure compliance with the alternative emission limitations described in paragraphs (e)(2) and (e)(3) of this section pursuant to § 63.1209(n), except that SVM feed rate limits apply to Pb, Cd, and Se, combined, and LVM feed rate limits apply to As, Be, Cr, Sb, cobalt, Mn, and Ni, combined.

(f) Elective standards for area sources. Area sources as defined under § 63.2 are subject to the standards for Cd and Pb, the standards for Cr, the standards for HCl/Cl<sub>2</sub>, and the standards for PM under this section if they elect under § 266.100(b)(3) of this chapter to comply with those standards in lieu of the standards under 40 CFR §§ 266.105, 266.106, and 266.107 to control those pollutants.

[70 FR 59567, Oct. 12, 2005]

#### **§ 63.1218 What are the standards for hydrochloric acid production furnaces that burn hazardous waste?**

(a) Emission limits for existing sources. You must not discharge or cause combustion gases to be emitted into the atmosphere that contain:

(1) For dioxins and furans, either CO or hydrocarbon emissions in excess of the limits provided by paragraph (a)(5) of this section;



(2) For Hg, HCl/Cl<sub>2</sub> emissions in excess of the levels provided by paragraph (a)(6) of this section;

(3) For Pb and Cd, except for an area source as defined under § 63.2, HCl/Cl<sub>2</sub> emissions in excess of the levels provided by paragraph (a)(6) of this section;

(4) For As, Be, and Cr, except for an area source as defined under § 63.2, HCl/Cl<sub>2</sub> emissions in excess of the levels provided by paragraph (a)(6) of this section;

(5) For CO and hydrocarbons, either:

(i) CO in excess of 100 ppmV, over an hourly rolling average (monitored continuously with a CEMS), dry basis and corrected to 7% O<sub>2</sub>. If you elect to comply with this CO standard rather than the hydrocarbon standard under paragraph (a)(5)(ii) of this section, you must also document that, during the DRE test runs or their equivalent as provided by § 63.1206(b)(7), hydrocarbons do not exceed 10 ppmV during those runs, over an hourly rolling average (monitored continuously with a CEMS), dry basis, corrected to 7% O<sub>2</sub>, and reported as propane; or

(ii) Hydrocarbons in excess of 10 ppmV, over an hourly rolling average (monitored continuously with a CEMS), dry basis, corrected to 7% O<sub>2</sub>, and reported as propane;

(6) For HCl/Cl<sub>2</sub>, either:

(i) Emission in excess of 150 ppmV, combined emissions, expressed as a Cl<sup>-</sup> equivalent, dry basis and corrected to 7% O<sub>2</sub>; or

(ii) Emissions greater than the levels that would be emitted if the source is achieving a SRE (SRE) of less than 99.923 percent for total chlorine and chloride fed to the combustor. You must calculate SRE from the following equation:

$$\text{SRE} = [1 - (\text{Cl}_{\text{out}} / \text{Cl}_{\text{in}})] \times 100\%$$

Where:

Cl<sub>in</sub> = mass feed rate of total chlorine or chloride in all feedstreams, reported as chloride; and

Cl<sub>out</sub> = mass emission rate of HCl/Cl<sub>2</sub>, reported as chloride, in exhaust emissions prior to release to the atmosphere.

(7) For PM, except for an area source as defined under § 63.2, HCl/Cl<sub>2</sub> emissions in excess of the levels provided by paragraph (a)(6) of this section.

(b) Emission limits for new sources. You must not discharge or cause combustion gases to be emitted into the atmosphere that contain:

- (1) For dioxins and furans, either CO or hydrocarbon emissions in excess of the limits provided by paragraph (b)(5) of this section;
- (2) For Hg, HCl/Cl<sub>2</sub> emissions in excess of the levels provided by paragraph (b)(6) of this section;
- (3) For Pb and Cd, except for an area source as defined under § 63.2, HCl/Cl<sub>2</sub> emissions in excess of the levels provided by paragraph (b)(6) of this section;
- (4) For As, Be, and Cr, except for an area source as defined under § 63.2, HCl/Cl<sub>2</sub> emissions in excess of the levels provided by paragraph (b)(6) of this section;
- (5) For CO and hydrocarbons, either:

(i) CO in excess of 100 ppmV, over an hourly rolling average (monitored continuously with a CEMS), dry basis and corrected to 7% O<sub>2</sub>. If you elect to comply with this CO standard rather than the hydrocarbon standard under paragraph (b)(5)(ii) of this section, you must also document that, during the DRE test runs or their equivalent as provided by § 63.1206(b)(7), hydrocarbons do not exceed 10 ppmV during those runs, over an hourly rolling average (monitored continuously with a CEMS), dry basis, corrected to 7% O<sub>2</sub>, and reported as propane; or

(ii) Hydrocarbons in excess of 10 ppmV, over an hourly rolling average (monitored continuously with a CEMS), dry basis, corrected to 7% O<sub>2</sub>, and reported as propane;

- (6) For HCl/Cl<sub>2</sub>, either:

(i) Emission in excess of 25 ppmV, combined emissions, expressed as a Cl<sup>-</sup> equivalent, dry basis and corrected to 7% O<sub>2</sub>; or

(ii) Emissions greater than the levels that would be emitted if the source is achieving a SRE (SRE) of less than 99.987 percent for total chlorine and chloride fed to the combustor. You must calculate SRE from the following equation:

$$\text{SRE} = [1 - (\text{Cl}_{\text{out}} / \text{Cl}_{\text{in}})] \times 100\%$$

Where:

Cl<sub>in</sub> = mass feed rate of total chlorine or chloride in all feedstreams, reported as chloride; and

Cl<sub>ou</sub><sub>t</sub> = mass emission rate of HCl/Cl<sub>2</sub>, reported as chloride, in exhaust emissions prior to release to the atmosphere.

- (7) For PM, except for an area source as defined under § 63.2, HCl/Cl<sub>2</sub> emissions in excess of the levels provided by paragraph (b)(6) of this section.

(c) DRE standard.

(1) 99.99% DRE. Except as provided in paragraph (c)(2) of this section, you must achieve a DRE of 99.99% for each POHC designated under paragraph (c)(3) of this section. You must calculate DRE for each POHC from the following equation:

$$\text{DRE} = [1 - (W_{\text{out}} / W_{\text{in}})] \times 100\%$$

Where:

$W_{\text{in}}$  = mass feed rate of one POHC in a waste feedstream; and  
 $W_{\text{out}}$  = mass emission rate of the same POHC present in exhaust emissions prior to release to the atmosphere.

(2) 99.9999% DRE. If you burn the dioxin-listed hazardous wastes F020, F021, F022, F023, F026, or F027 (see § 261.31 of this chapter), you must achieve a DRE of 99.9999% for each POHC that you designate under paragraph (c)(3) of this section. You must demonstrate this DRE performance on POHCs that are more difficult to incinerate than tetra-, penta-, and hexaCDDs and dibenzofurans. You must use the equation in paragraph (c)(1) of this section to calculate DRE for each POHC. In addition, you must notify the Administrator of your intent to incinerate hazardous wastes F020, F021, F022, F023, F026, or F027.

(3) POHCs.

(i) You must treat the POHCs in the waste feed that you specify under paragraph (c)(3)(ii) of this section to the extent required by paragraphs (c)(1) and (c)(2) of this section.

(ii) You must specify one or more POHCs that are representative of the most difficult to destroy organic compounds in your hazardous waste feedstream. You must base this specification on the degree of difficulty of incineration of the organic constituents in the hazardous waste and on their concentration or mass in the hazardous waste feed, considering the results of hazardous waste analyses or other data and information.

(d) Significant figures. The emission limits provided by paragraphs (a) and (b) of this section are presented with two significant figures. Although you must perform intermediate calculations using at least three significant figures, you may round the resultant emission levels to two significant figures to document compliance.

(e) Elective standards for area sources. Area sources as defined under § 63.2 are subject to the standards for Cd and Pb, the standards for As, Be, and Cr, the standards for HCl/Cl<sub>2</sub>, and the standards for PM under this section if they elect under § 266.100(b)(3) of this chapter to comply with those standards in lieu of the standards under 40 CFR §§ 266.105, 266.106, and 266.107 to control those pollutants.

[70 FR 59569, Oct. 12, 2005]

## **Replacement Emissions Standards and Operating Limits for Incinerators, Cement Kilns, and LWAKs**

### **§ 63.1219 What are the replacement standards for hazardous waste incinerators?**

(a) Emission limits for existing sources. You must not discharge or cause combustion gases to be emitted into the atmosphere that contain:

(1) For dioxins and furans:

(i) For incinerators equipped with either a waste heat boiler or dry air pollution control system, either:

(A) Emissions in excess of 0.20 ng TEQ/dscm, corrected to 7% O<sub>2</sub>; or

(B) Emissions in excess of 0.40 ng TEQ/dscm, corrected to 7% O<sub>2</sub>, provided that the combustion gas temperature at the inlet to the initial PM control device is 400°F or lower based on the average of the test run average temperatures. (For purposes of compliance, operation of a wet PM control device is presumed to meet the 400°F or lower requirement);

(ii) Emissions in excess of 0.40 ng TEQ/dscm, corrected to 7% O<sub>2</sub>, for incinerators not equipped with either a waste heat boiler or dry air pollution control system;

(iii) A source equipped with a wet air pollution control system followed by a dry air pollution control system is not considered to be a dry air pollution control system, and a source equipped with a dry air pollution control system followed by a wet air pollution control system is considered to be a dry air pollution control system for purposes of this standard;

(2) Hg in excess of 130 \*g/dscm, corrected to 7% O<sub>2</sub>;

(3) Cd and Pb in excess of 230 \*g/dscm, combined emissions, corrected to 7% O<sub>2</sub>;

(4) As, Be, and Cr in excess of 92 \*g/dscm, combined emissions, corrected to 7% O<sub>2</sub>;

(5) For CO and hydrocarbons, either:

(i) CO in excess of 100 ppmV, over an hourly rolling average (monitored continuously with a CEMS), dry basis and corrected to 7% O<sub>2</sub>. If you elect to comply with this CO standard rather than the hydrocarbon standard under paragraph (a)(5)(ii) of this section, you

must also document that, during the DRE test runs or their equivalent as provided by § 63.1206(b)(7), hydrocarbons do not exceed 10 ppmV during those runs, over an hourly rolling average (monitored continuously with a CEMS), dry basis, corrected to 7% O<sub>2</sub>, and reported as propane; or

(ii) Hydrocarbons in excess of 10 ppmV, over an hourly rolling average (monitored continuously with a CEMS), dry basis, corrected to 7% O<sub>2</sub>, and reported as propane;

(6) HCl/Cl<sub>2</sub> in excess of 32 ppmV, combined emissions, expressed as a Cl<sup>-</sup> equivalent, dry basis and corrected to 7% O<sub>2</sub>; and

(7) Except as provided by paragraph (e) of this section, PM in excess of 0.013 gr/dscf corrected to 7% O<sub>2</sub>.

(b) Emission limits for new sources. You must not discharge or cause combustion gases to be emitted into the atmosphere that contain:

(1)

(i) Dioxins and furans in excess of 0.11 ng TEQ/dscm corrected to 7% O<sub>2</sub> for incinerators equipped with either a waste heat boiler or dry air pollution control system; or

(ii) Dioxins and furans in excess of 0.20 ng TEQ/dscm corrected to 7% O<sub>2</sub> for sources not equipped with either a waste heat boiler or dry air pollution control system;

(iii) A source equipped with a wet air pollution control system followed by a dry air pollution control system is not considered to be a dry air pollution control system, and a source equipped with a dry air pollution control system followed by a wet air pollution control system is considered to be a dry air pollution control system for purposes of this standard;

(2) Hg in excess of 8.1 \*g/dscm, corrected to 7% O<sub>2</sub>;

(3) Cd and Pb in excess of 10 \*g/dscm, combined emissions, corrected to 7% O<sub>2</sub>;

(4) As, Be, and Cr in excess of 23 \*g/dscm, combined emissions, corrected to 7% O<sub>2</sub>;

(5) For CO and hydrocarbons, either:

(i) CO in excess of 100 ppmV, over an hourly rolling average (monitored continuously with a CEMS), dry basis and corrected to 7% O<sub>2</sub>. If you elect to comply with this CO standard rather than the hydrocarbon standard under paragraph (b)(5)(ii) of this section, you must also document that, during the DRE test runs or their equivalent as provided by § 63.1206(b)(7), hydrocarbons do not exceed 10 ppmV

during those runs, over an hourly rolling average (monitored continuously with a CEMS), dry basis, corrected to 7% O<sub>2</sub>, and reported as propane; or

(ii) Hydrocarbons in excess of 10 ppmV, over an hourly rolling average (monitored continuously with a CEMS), dry basis, corrected to 7% O<sub>2</sub>, and reported as propane;

(6) HCl/Cl<sub>2</sub> in excess of 21 ppmV, combined emissions, expressed as a Cl<sup>-</sup> equivalent, dry basis and corrected to 7% O<sub>2</sub>; and

(7) Except as provided by paragraph (e) of this section, PM in excess of 0.0015 gr/dscf, corrected to 7% O<sub>2</sub>.

(c) DRE standard.

(1) 99.99% DRE. Except as provided in paragraph (c)(2) of this section, you must achieve a DRE of 99.99% for each POHC designated under paragraph (c)(3) of this section. You must calculate DRE for each POHC from the following equation:

$$\text{DRE} = [1 - (W_{\text{out}} / W_{\text{in}})] \times 100\%$$

Where:

$W_{\text{in}}$  = mass feed rate of one POHC in a waste feedstream; and

$W_{\text{out}}$  = mass emission rate of the same POHC present in exhaust emissions prior to release to the atmosphere.

(2) 99.9999% DRE. If you burn the dioxin-listed hazardous wastes F020, F021, F022, F023, F026, or F027 (see § 261.31 of this chapter), you must achieve a DRE of 99.9999% for each POHC that you designate under paragraph (c)(3) of this section. You must demonstrate this DRE performance on POHCs that are more difficult to incinerate than tetra-, penta-, and hexaCDDs and dibenzofurans. You must use the equation in paragraph (c)(1) of this section to calculate DRE for each POHC. In addition, you must notify the Administrator of your intent to incinerate hazardous wastes F020, F021, F022, F023, F026, or F027.

(3) POHC.

(i) You must treat each POHC in the waste feed that you specify under paragraph (c)(3)(ii) of this section to the extent required by paragraphs (c)(1) and (c)(2) of this section.

(ii) You must specify one or more POHCs that are representative of the most difficult to destroy organic compounds in your hazardous waste feedstream. You must base this specification on the degree of difficulty of incineration of the organic constituents in the hazardous waste and on their concentration or mass in the hazardous waste feed, considering the results of hazardous waste analyses or other data and information.

(d) Significant figures. The emission limits provided by paragraphs (a) and (b) of this section are presented with two significant figures. Although you must perform intermediate calculations using at least three significant figures, you may round the resultant emission levels to two significant figures to document compliance.

(e) Alternative to the PM standard.

(1) General. In lieu of complying with the PM standards of this section, you may elect to comply with the following alternative metal emission control requirement:

(2) Alternative metal emission control requirements for existing incinerators.

(i) You must not discharge or cause combustion gases to be emitted into the atmosphere that contain Cd, Pb, and Se in excess of 230 \*g/dscm, combined emissions, corrected to 7% O<sub>2</sub>; and,

(ii) You must not discharge or cause combustion gases to be emitted into the atmosphere that contain Sb, As, Be, Cr, cobalt, Mn, and Ni in excess of 92 \*g/dscm, combined emissions, corrected to 7% O<sub>2</sub>.

(3) Alternative metal emission control requirements for new incinerators.

(i) You must not discharge or cause combustion gases to be emitted into the atmosphere that contain Cd, Pb, and Se in excess of 10 \*g/dscm, combined emissions, corrected to 7% O<sub>2</sub>; and,

(ii) You must not discharge or cause combustion gases to be emitted into the atmosphere that contain Sb, As, Be, Cr, cobalt, Mn, and Ni in excess of 23 \*g/dscm, combined emissions, corrected to 7% O<sub>2</sub>.

(4) Operating limits. SVM and LVM OPLs must be established to ensure compliance with the alternative emission limitations described in paragraphs (e) (2) and (e) (3) of this section pursuant to § 63.1209(n), except that SVM feed rate limits apply to Pb, Cd, and Se, combined, and LVM feed rate limits apply to As, Be, Cr, Sb, cobalt, Mn, and Ni, combined.

[70 FR 59570, Oct. 12, 2005]

**§ 63.1220 What are the replacement standards for hazardous waste burning cement kilns?**

(a) Emission and hazardous waste feed limits for existing sources. You must not discharge or cause combustion gases to be emitted into the atmosphere or feed hazardous waste that contain:

(1) For dioxins and furans, either:

(i) Emissions in excess of 0.20 ng TEQ/dscm corrected to 7% O<sub>2</sub>;  
or

(ii) Emissions in excess of 0.40 ng TEQ/dscm corrected to 7% O<sub>2</sub> provided that the combustion gas temperature at the inlet to the initial dry PM control device is 400°F or lower based on the average of the test run average temperatures;

(2) For Hg, both:

(i) An average as-fired concentration of Hg in all hazardous waste feedstreams in excess of 3.0 ppmW; and

(ii) Emissions in excess of 120 \*g/dscm, corrected to 7% O<sub>2</sub>; or

(iii) A hazardous waste feed rate corresponding to a MTEC in excess of 120 \*g/dscm;

(3) For Cd and Pb, both:

(i) Emissions in excess of  $7.6 \times 10^{-4}$  lbs combined emissions of Cd and Pb attributable to the hazardous waste per mmBTU heat input from the hazardous waste; and

(ii) Emissions in excess of 330 \*g/dscm, combined emissions, corrected to 7% O<sub>2</sub>;

(4) For As, Be, and Cr, both:

(i) Emissions in excess of  $2.1 \times 10^{-5}$  lbs combined emissions of As, Be, and Cr attributable to the hazardous waste per mmBTU heat input from the hazardous waste; and

(ii) Emissions in excess of 56 \*g/dscm, combined emissions, corrected to 7% O<sub>2</sub>;

(5) CO and hydrocarbons.

(i) For kilns equipped with a by-pass duct or mid-kiln gas sampling system, either:

(A) CO in the by-pass duct or mid-kiln gas sampling system in excess of 100 ppmV, over an hourly rolling average (monitored continuously with a CEMS), dry basis and corrected to 7% O<sub>2</sub>. If you elect to comply with this CO standard rather than the hydrocarbon standard under paragraph (a)(5)(i)(B) of this section, you must also document that, during the DRE test runs or their equivalent as provided by § 63.1206(b)(7), hydrocarbons in the by-pass duct or mid-kiln gas sampling system do not exceed 10 ppmV during those runs, over



an hourly rolling average (monitored continuously with a CEMS), dry basis, corrected to 7% O<sub>2</sub>, and reported as propane; or

(B) Hydrocarbons in the by-pass duct or midkiln gas sampling system in excess of 10 ppmV, over an hourly rolling average (monitored continuously with a CEMS), dry basis, corrected to 7% O<sub>2</sub>, and reported as propane;

(ii) For kilns not equipped with a by-pass duct or midkiln gas sampling system, either:

(A) Hydrocarbons in the main stack in excess of 20 ppmV, over an hourly rolling average (monitored continuously with a CEMS), dry basis, corrected to 7% O<sub>2</sub>, and reported as propane; or

(B) CO in the main stack in excess of 100 ppmV, over an hourly rolling average (monitored continuously with a CEMS), dry basis and corrected to 7% O<sub>2</sub>. If you elect to comply with this CO standard rather than the hydrocarbon standard under paragraph (a)(5)(ii)(A) of this section, you also must document that, during the DRE test runs or their equivalent as provided by § 63.1206(b)(7), hydrocarbons in the main stack do not exceed 20 ppmV during those runs, over an hourly rolling average (monitored continuously with a CEMS), dry basis, corrected to 7% O<sub>2</sub>, and reported as propane.

(6) HCl/Cl<sub>2</sub> in excess of 120 ppmV, combined emissions, expressed as a Cl<sup>-</sup> equivalent, dry basis, corrected to 7% O<sub>2</sub>; and

(7) For PM, both:

(i) Emissions in excess of 0.028 gr/dscf corrected to 7% O<sub>2</sub>; and

(ii) Opacity greater than 20 percent, unless your source is equipped with a bag leak detection system under § 63.1206(c)(8) or a PM detection system under § 63.1206(c)(9).

(b) Emission and hazardous waste feed limits for new sources. You must not discharge or cause combustion gases to be emitted into the atmosphere or feed hazardous waste that contain:

(1) For dioxins and furans, either:

(i) Emissions in excess of 0.20 ng TEQ/dscm corrected to 7% O<sub>2</sub>; or

(ii) Emissions in excess of 0.40 ng TEQ/dscm corrected to 7% O<sub>2</sub> provided that the combustion gas temperature at the inlet to the initial dry PM control device is 400°F or lower based on the average of the test run average temperatures;

(2) For Hg, both:

(i) An average as-fired concentration of Hg in all hazardous waste feedstreams in excess of 1.9 ppmW; and

(ii) Emissions in excess of 120 \*g/dscm, corrected to 7% O<sub>2</sub>; or

(iii) A hazardous waste feed rate corresponding to a MTEC in excess of 120 \*g/dscm;

(3) For Cd and Pb, both:

(i) Emissions in excess of  $6.2 \times 10^{-5}$  lbs combined emissions of Cd and Pb attributable to the hazardous waste per mmBTU heat input from the hazardous waste; and

(ii) Emissions in excess of 180 \*g/dscm, combined emissions, corrected to 7% O<sub>2</sub>;

(4) For As, Be, and Cr, both:

(i) Emissions in excess of  $1.5 \times 10^{-5}$  lbs combined emissions of As, Be, and Cr attributable to the hazardous waste per mmBTU heat input from the hazardous waste; and

(ii) Emissions in excess of 54 \*g/dscm, combined emissions, corrected to 7% O<sub>2</sub>;

(5) CO and hydrocarbons.

(i) For kilns equipped with a by-pass duct or midkiln gas sampling system, CO and hydrocarbons emissions are limited in both the bypass duct or midkiln gas sampling system and the main stack as follows:

(A) Emissions in the by-pass or midkiln gas sampling system are limited to either:

(1) CO in excess of 100 ppmV, over an hourly rolling average (monitored continuously with a CEMS), dry basis and corrected to 7% O<sub>2</sub>. If you elect to comply with this CO standard rather than the hydrocarbon standard under paragraph (b)(5)(i)(A)(2) of this section, you also must document that, during the DRE test runs or their equivalent as provided by § 63.1206(b)(7), hydrocarbons do not exceed 10 ppmV during those runs, over an hourly rolling average (monitored continuously with a CEMS), dry basis, corrected to 7% O<sub>2</sub>, and reported as propane; or

(2) Hydrocarbons in the by-pass duct or midkiln gas sampling system in excess of 10 ppmV, over an hourly rolling average (monitored continuously with a CEMS), dry basis, corrected to 7% O<sub>2</sub>, and reported as propane; and

(B) Hydrocarbons in the main stack are limited, if construction of the kiln commenced after April 19, 1996 at a plant site where a cement kiln (whether burning hazardous waste or not) did not previously exist, to 50 ppmV, over a 30-day block average (monitored continuously with a CMS), dry basis, corrected to 7% O<sub>2</sub>, and reported as propane.

(ii) For kilns not equipped with a by-pass duct or midkiln gas sampling system, hydrocarbons and CO are limited in the main stack to either:

(A) Hydrocarbons not exceeding 20 ppmV, over an hourly rolling average (monitored continuously with a CEMS), dry basis, corrected to 7% O<sub>2</sub>, and reported as propane; or

(B)

(1) CO not exceeding 100 ppmV, over an hourly rolling average (monitored continuously with a CEMS), dry basis, corrected to 7% O<sub>2</sub>; and

(2) Hydrocarbons not exceeding 20 ppmV, over an hourly rolling average (monitored continuously with a CMS), dry basis, corrected to 7% O<sub>2</sub>, and reported as propane at any time during the DRE test runs or their equivalent as provided by § 63.1206(b)(7); and

(3) If construction of the kiln commenced after April 19, 1996 at a plant site where a cement kiln (whether burning hazardous waste or not) did not previously exist, hydrocarbons are limited to 50 ppmV, over a 30-day block average (monitored continuously with a CMS), dry basis, corrected to 7% O<sub>2</sub>, and reported as propane.

(6) HCl/Cl<sub>2</sub> in excess of 86 ppmV, combined emissions, expressed as a Cl<sup>-</sup> equivalent, dry basis and corrected to 7% O<sub>2</sub>; and

(7) For PM, both:

(i) Except as provided by § 63.1206(a)(1)(ii)(B)(3) and paragraph (b)(7)(iii) of this section, PM emissions in excess of 0.0023 gr/dscf corrected to 7 percent oxygen.

(ii) Opacity greater than 20 percent, unless your source is equipped with a bag leak detection system under § 63.1206(c)(8) or a PM detection system under § 63.1206(c)(9).

(c) DRE standard.

(1) 99.99% DRE. Except as provided in paragraph (c)(2) of this section, you must achieve a DRE of 99.99% for each POHC designated under paragraph (c)(3) of this section. You must calculate DRE for each POHC from the following equation:

$$\text{DRE} = [1 - (W_{\text{out}} / W_{\text{in}})] \times 100\%$$

Where:

$W_{\text{in}}$  = mass feed rate of one POHC in a waste feedstream; and  
 $W_{\text{out}}$  = mass emission rate of the same POHC present in exhaust emissions prior to release to the atmosphere.

(2) 99.9999% DRE. If you burn the dioxin-listed hazardous wastes F020, F021, F022, F023, F026, or F027 (see § 261.31 of this chapter), you must achieve a DRE of 99.9999% for each POHC that you designate under paragraph (c)(3) of this section. You must demonstrate this DRE performance on POHCs that are more difficult to incinerate than tetra-, penta-, and hexaCDDs and dibenzofurans. You must use the equation in paragraph (c)(1) of this section to calculate DRE for each POHC. In addition, you must notify the Administrator of your intent to incinerate hazardous wastes F020, F021, F022, F023, F026, or F027.

(3) POHC.

(i) You must treat each POHC in the waste feed that you specify under paragraph (c)(3)(ii) of this section to the extent required by paragraphs (c)(1) and (c)(2) of this section.

(ii) You must specify one or more POHCs that are representative of the most difficult to destroy organic compounds in your hazardous waste feedstream. You must base this specification on the degree of difficulty of incineration of the organic constituents in the hazardous waste and on their concentration or mass in the hazardous waste feed, considering the results of hazardous waste analyses or other data and information.

(d) Cement kilns with in-line kiln raw mills.

(1) General.

(i) You must conduct performance testing when the raw mill is on-line and when the mill is off-line to demonstrate compliance with the emission standards, and you must establish separate OPLs under § 63.1209 for each mode of operation, except as provided by paragraphs (d)(1)(iv) and (d)(1)(v) of this section.

(ii) You must document in the operating record each time you change from one mode of operation to the alternate mode and begin complying with the OPLs for that alternate mode of operation.

(iii) You must calculate rolling averages for OPLs as provided by § 63.1209(q)(2).

(iv) If your in-line kiln raw mill has dual stacks, you may assume that the D/F emission levels in the by-pass stack and the OPLs determined during performance testing of the by-pass stack when the raw mill is off-line are the same as when the mill is on-line.

(v) In lieu of conducting a performance test to demonstrate compliance with the D/F emission standards for the mode of operation when the raw mill is on-line, you may specify in the performance test workplan and NOC the same OPLs required under § 63.1209(k) for the mode of operation when the raw mill is on-line as you establish during performance testing for the mode of operation when the raw mill is off-line.

(2) Emissions averaging. You may comply with the Hg, SVM, LVM, and HCl/Cl<sub>2</sub> emission standards on a time-weighted average basis under the following procedures:

(i) Averaging methodology. You must calculate the time-weighted average emission concentration with the following equation:

$$C_{\text{total}} = \{C_{\text{mill-off}} \times (T_{\text{mill-off}} / (T_{\text{mill-off}} + T_{\text{mill-on}}))\} + \{C_{\text{mill-on}} \times (T_{\text{mill-on}} / (T_{\text{mill-off}} + T_{\text{mill-on}}))\}$$

Where:

$C_{\text{total}}$	=	time-weighted average concentration of a regulated constituent considering both raw mill on time and off time;
$C_{\text{mill-off}}$	=	average performance test concentration of regulated constituent with the raw mill off-line;
$C_{\text{mill-on}}$	=	average performance test concentration of regulated constituent with the raw mill on-line;
$T_{\text{mill-off}}$	=	time when kiln gases are not routed through the raw mill; and
$T_{\text{mill-on}}$	=	time when kiln gases are routed through the raw mill.

(ii) Compliance.

(A) If you use this emission averaging provision, you must document in the operating record compliance with the emission standards on an annual basis by using the equation provided by paragraph (d)(2) of this section.

(B) Compliance is based on 1-year block averages beginning on the day you submit the initial NOC.

(iii) Notification.

(A) If you elect to document compliance with one or more emission standards using this emission averaging provision, you must notify the Administrator in the initial CPT plan submitted under § 63.1207(e).

(B) You must include historical raw mill operation data in the performance test plan to estimate future raw mill down-time and

document in the performance test plan that estimated emissions and estimated raw mill down-time will not result in an exceedance of an emission standard on an annual basis.

(C) You must document in the NOC submitted under § 63.1207(j) that an emission standard will not be exceeded based on the documented emissions from the performance test and predicted raw mill down-time.

(e) Preheater or preheater/precalciner kilns with dual stacks.

(1) General. You must conduct performance testing on each stack to demonstrate compliance with the emission standards, and you must establish OPLs under § 63.1209 for each stack, except as provided by paragraph (d)(1)(iv) of this section for D/F emissions testing and OPLs for the by-pass stack of in-line raw mills.

(2) Emissions averaging. You may comply with the Hg, SVM, LVM, and HCl/Cl<sub>2</sub> emission standards specified in this section on a gas flow rate-weighted average basis under the following procedures:

(i) Averaging methodology. You must calculate the gas flow rate-weighted average emission concentration using the following equation:

$$C_{\text{total}} = \{C_{\text{main}} \times (Q_{\text{main}} / (Q_{\text{main}} + Q_{\text{bypass}}))\} + \{C_{\text{bypass}} \times (Q_{\text{bypass}} / (Q_{\text{main}} + Q_{\text{bypass}}))\}$$

Where:

$C_{\text{total}}$  = gas flow rate-weighted average concentration of the regulated constituent;  
 $C_{\text{main}}$  = average performance test concentration demonstrated in the main stack;  
 $C_{\text{bypass}}$  = average performance test concentration demonstrated in the bypass stack;  
 $Q_{\text{main}}$  = volumetric flow rate of main stack effluent gas; and  
 $Q_{\text{bypass}}$  = volumetric flow rate of bypass effluent gas.

(ii) Compliance.

(A) You must demonstrate compliance with the emission standard(s) using the emission concentrations determined from the performance tests and the equation provided by paragraph (e)(1) of this section; and

(B) You must develop OPLs for bypass stack and main stack flow rates that ensure the emission concentrations calculated with the equation in paragraph (e)(1) of this section do not exceed the emission standards on a 12-hour rolling average basis. You must include these flow rate limits in the NOC.

(iii) Notification. If you elect to document compliance under this emissions averaging provision, you must:

(A) Notify the Administrator in the initial CPT plan submitted under § 63.1207(e). The performance test plan must include, at a minimum, information describing the flow rate limits established under paragraph (e)(2)(ii)(B) of this section; and

(B) Document in the NOC submitted under § 63.1207(j) the demonstrated gas flow rate-weighted average emissions that you calculate with the equation provided by paragraph (e)(2) of this section.

(f) Significant figures. The emission limits provided by paragraphs (a) and (b) of this section are presented with two significant figures. Although you must perform intermediate calculations using at least three significant figures, you may round the resultant emission levels to two significant figures to document compliance.

(g) [Reserved]

(h) When you comply with the PM requirements of paragraphs (a)(7) or (b)(7) of this section, you are exempt from the New Source Performance Standard for PM and opacity under § 60.60 of this chapter.

[70 FR 59571, Oct. 12, 2005; 71 FR 62394, Oct. 25, 2006]

#### **§ 63.1221 What are the replacement standards for hazardous waste burning LWAKs?**

(a) Emission and hazardous waste feed limits for existing sources. You must not discharge or cause combustion gases to be emitted into the atmosphere or feed hazardous waste that contain:

(1) For dioxins and furans, either:

(i) Emissions in excess of 0.20 ng TEQ/dscm corrected to 7% O<sub>2</sub>; or

(ii) Rapid quench of the combustion gas temperature at the exit of the (last) combustion chamber (or exit of any waste heat recovery system that immediately follows the last combustion chamber) to 400 °F or lower based on the average of the test run average temperatures. You must also notify in writing the RCRA authority that you are complying with this option;

(2) For Hg, either:

(i) Emissions in excess of 120 \*g/dscm, corrected to 7% O<sub>2</sub>; or

(ii) A hazardous waste feed rate corresponding to a MTEC in excess of 120 \*g/dscm;

(3) For Cd and Pb, both:

(i) Emissions in excess of  $3.0 \times 10^{-4}$  lbs combined emissions of Cd and Pb attributable to the hazardous waste per mmBTU heat input from the hazardous waste; and

(ii) Emissions in excess of 250 \*g/dscm, combined emissions, corrected to 7% O<sub>2</sub>;

(4) For As, Be, and Cr, both:

(i) In excess of  $9.5 \times 10^{-5}$  lbs combined emissions of As, Be, and Cr attributable to the hazardous waste per mmBTU heat input from the hazardous waste;

(ii) Emissions in excess of 110 \*g/dscm, combined emissions, corrected to 7% O<sub>2</sub>;

(5) CO and hydrocarbons.

(i) CO in excess of 100 ppmV, over an hourly rolling average (monitored continuously with a CEMS), dry basis and corrected to 7% O<sub>2</sub>. If you elect to comply with this CO standard rather than the hydrocarbon standard under paragraph (a)(5)(ii) of this section, you also must document that, during the DRE test runs or their equivalent as provided by § 63.1206(b)(7), hydrocarbons do not exceed 20 ppmV during those runs, over an hourly rolling average (monitored continuously with a CEMS), dry basis, corrected to 7% O<sub>2</sub>, and reported as propane; or

(ii) Hydrocarbons in excess of 20 ppmV, over an hourly rolling average, dry basis, corrected to 7% O<sub>2</sub>, and reported as propane;

(6) HCl/Cl<sub>2</sub> in excess of 600 ppmV, combined emissions, expressed as a Cl<sup>-</sup> equivalent, dry basis and corrected to 7% O<sub>2</sub>; and

(7) PM emissions in excess of 0.025 gr/dscf, corrected to 7% O<sub>2</sub>.

(b) Emission and hazardous waste feed limits for new sources. You must not discharge or cause combustion gases to be emitted into the atmosphere or feed hazardous waste that contain:

(1) For dioxins and furans, either:

(i) Emissions in excess of 0.20 ng TEQ/dscm corrected to 7% O<sub>2</sub>;  
or

(ii) Rapid quench of the combustion gas temperature at the exit of the (last) combustion chamber (or exit of any waste heat recovery system that immediately follows the last combustion chamber) to 400°F or lower based on the average of the test run average temperatures.



You must also notify in writing the RCRA authority that you are complying with this option;

(2) For Hg, either:

(i) Emissions in excess of 120 \*g/dscm, corrected to 7% O<sub>2</sub>; or

(ii) A hazardous waste feed rate corresponding to a MTEC in excess of 120 \*g/dscm;

(3) For Cd and Pb, both:

(i) Emissions in excess of  $3.7 \times 10^{-5}$  lbs combined emissions of Cd and Pb attributable to the hazardous waste per mmBTU heat input from the hazardous waste; and

(ii) Emissions in excess of 43 \*g/dscm, combined emissions, corrected to 7% O<sub>2</sub>;

(4) For As, Be, and Cr, both:

(i) In excess of  $3.3 \times 10^{-5}$  lbs combined emissions of As, Be, and Cr attributable to the hazardous waste per mmBTU heat input from the hazardous waste;

(ii) Emissions in excess of 110 \*g/dscm, combined emissions, corrected to 7% O<sub>2</sub>;

(5) CO and hydrocarbons.

(i) CO in excess of 100 ppmV, over an hourly rolling average (monitored continuously with a CEMS), dry basis and corrected to 7% O<sub>2</sub>. If you elect to comply with this CO standard rather than the hydrocarbon standard under paragraph (b)(5)(ii) of this section, you also must document that, during the DRE test runs or their equivalent as provided by § 63.1206(b)(7), hydrocarbons do not exceed 20 ppmV during those runs, over an hourly rolling average (monitored continuously with a CEMS), dry basis, corrected to 7% O<sub>2</sub>, and reported as propane; or

(ii) Hydrocarbons in excess of 20 ppmV, over an hourly rolling average, dry basis, corrected to 7% O<sub>2</sub>, and reported as propane;

(6) HCl/Cl<sub>2</sub> in excess of 600 ppmV, combined emissions, expressed as a Cl<sup>-</sup> equivalent, dry basis and corrected to 7% O<sub>2</sub>; and

(7) PM emissions in excess of 0.0098 gr/dscf corrected to 7% O<sub>2</sub>.

(c) DRE standard.

(1) 99.99% DRE. Except as provided in paragraph (c)(2) of this section, you must achieve a DRE of 99.99% for each POHC designated

under paragraph (c)(3) of this section. You must calculate DRE for each POHC from the following equation:

$$\text{DRE} = [1 - (W_{\text{out}} / W_{\text{in}})] \times 100\%$$

Where:

$W_{\text{in}}$  = mass feed rate of one POHC in a waste feedstream; and  
 $W_{\text{out}}$  = mass emission rate of the same POHC present in exhaust emissions prior to release to the atmosphere.

(2) 99.9999% DRE. If you burn the dioxin-listed hazardous wastes F020, F021, F022, F023, F026, or F027 (see § 261.31 of this chapter), you must achieve a DRE of 99.9999% for each POHC that you designate under paragraph (c)(3) of this section. You must demonstrate this DRE performance on POHCs that are more difficult to incinerate than tetra-, penta-, and hexachlorodibenzo-dioxins and dibenzofurans. You must use the equation in paragraph (c)(1) of this section to calculate DRE for each POHC. In addition, you must notify the Administrator of your intent to burn hazardous wastes F020, F021, F022, F023, F026, or F027.

(3) POHCs.

(i) You must treat each POHC in the waste feed that you specify under paragraph (c)(3)(ii) of this section to the extent required by paragraphs (c)(1) and (c)(2) of this section.

(ii) You must specify one or more POHCs that are representative of the most difficult to destroy organic compounds in your hazardous waste feedstream. You must base this specification on the degree of difficulty of incineration of the organic constituents in the hazardous waste and on their concentration or mass in the hazardous waste feed, considering the results of hazardous waste analyses or other data and information.

(d) Significant figures. The emission limits provided by paragraphs (a) and (b) of this section are presented with two significant figures. Although you must perform intermediate calculations using at least three significant figures, you may round the resultant emission levels to two significant figures to document compliance.

[70 FR 59574, Oct. 12, 2005]

**Table 1 to Subpart EEE of Part 63 – General Provisions Applicable to Subpart EEE**

Reference	Applies to subpart EEE	Explanation
63.1	Yes	
63.2	Yes	

63.3	Yes	
63.4	Yes	
63.5	Yes	
63.6 (a-e)	Yes	
63.6 (f)	Yes	Except that the performance test requirements of § 63.1207 apply instead of § 63.6(f) (2) (iii) (B) .
63.6 (g) and (h)	Yes	Section 63.1213 specifies that the compliance date may also be extended for inability to install necessary emission control equipment by the compliance date because of implementation of pollution prevention or waste minimization controls.
63.6 (i)	Yes	
63.6 (j)	Yes	
63.7 (a)	Yes	Except § 63.1207(e) (3) allows you to petition the Administrator under § 63.7(h) to provide an extension of time to conduct a performance test.
63.7 (b)	Yes	Except § 63.1207(e) requires you to submit the site-specific test plan for approval at least 1 year before the comprehensive performance test is scheduled to begin.
63.7 (c)	Yes	Except § 63.1207(e) requires you to submit the site-specific test plan (including the quality assurance provisions under § 63.7(c)) for approval at least 1 year before the comprehensive performance test is scheduled to begin.
63.7 (d)	Yes	
63.7 (e)	Yes	Except § 63.1207 prescribes operations during performance testing and § 63.1209 specifies operating limits that will be established during performance testing (such that testing is likely to be representative of the extreme range of normal performance).
63.7 (f)	Yes	
63.7 (g)	Yes	Except § 63.1207(j) requiring that you submit the results of the performance test (and the notification of compliance) within 90 days of completing the test, unless the Administrator grants a time extension, applies instead of § 63.7(g) (1) .
63.7 (h)	Yes	Except § 63.1207(c) (2) allows data in lieu of the initial CPT, and § 63.1207(m) provides a waiver of certain performance tests. You must submit requests for these waivers with the site-specific test plan.
63.8 (a) and (b)	Yes	

63.8(c)	Yes	Except: (1) § 63.1211(c) that requires you to install, calibrate, and operate CMS by the compliance date applies instead of § 63.8(c)(3); and (2) the PSSs for CO, HC, and O <sub>2</sub> CEMS in subpart B, of this chapter requiring that the detectors measure the sample concentration at least once every 15 seconds for calculating an average emission level once every 60 seconds apply instead of § 63.8(c)(4)(ii).
63.8(d)	Yes	
63.8(e)	Yes	Except § 63.1207(e) requiring you to submit the site-specific CPT plan and the CMS performance evaluation test plan for approval at least 1 year prior to the planned test date applies instead of §§ 63.8(e)(2) and (3)(iii).
63.8(f) and (g)	Yes	
63.9(a)	Yes	
63.9(b)	Yes	Note: Section 63.9(b)(1)(ii) pertains to notification requirements for area sources that become a major source, and § 63.9(b)(2)(v) requires a major source determination. Although area sources are subject to all provisions of this subpart (Subpart EEE), these sections nonetheless apply because the major source determination may affect the applicability of part 63 standards or title V permit requirements to other sources (i.e., other than a hazardous waste combustor) of HAPs at the facility.
63.9(c) and (d)	Yes	
63.9(e)	Yes	Except § 63.1207(e) which requires you to submit the CPT plan for approval 1 year prior to the planned performance test date applies instead of § 63.9(e).
63.9(f)	Yes	Section 63.9(f) applies if you are allowed under § 63.1209(a)(1)(v) to use visible determination of opacity for compliance in lieu of a COMS.
63.9(g)	Yes	Except § 63.9(g)(2) pertaining to COMS does not apply.
63.9(h)	Yes	Except § 63.1207(j) requiring you to submit the NOC within 90 days of completing a performance test unless the Administrator grants a time extension applies instead of § 63.9(h)(2)(iii). Note: Even though area sources are subject to this subpart, the major source determination required by § 63.9(h)(2)(i)(E) is applicable to HWCs for the reasons discussed above.

63.9(i) and (j)	Yes	
63.10	Yes	Except reports of performance test results required under § 63.10(d)(2) may be submitted up to 90 days after completion of the test.
63.11	No	
63.12- 63.15	Yes	

[67 FR 6994, Feb. 14, 2002]

## **Appendix to Subpart EEE of Part 63—Quality Assurance Procedures for Continuous Emissions Monitors Used for HWCs**

### **1. Applicability and Principle**

1.1 Applicability. These quality assurance requirements are used to evaluate the effectiveness of quality control (QC) and quality assurance (QA) procedures and the quality of data produced by continuous emission monitoring systems (CEMS) that are used for determining compliance with the emission standards on a continuous basis as specified in the applicable regulation. The QA procedures specified by these requirements represent the minimum requirements necessary for the control and assessment of the quality of CEMS data used to demonstrate compliance with the emission standards provided under this subpart EEE of part 63. Owners and operators must meet these minimum requirements and are encouraged to develop and implement a more extensive QA program. These requirements supersede those found in part 60, Appendix F, of this chapter. Appendix F does not apply to hazardous waste-burning devices.

1.2 Principle. The QA procedures consist of two distinct and equally important functions. One function is the assessment of the quality of the CEMS data by estimating accuracy. The other function is the control and improvement of the quality of the CEMS data by implementing QC policies and corrective actions. These two functions form a control loop. When the assessment function indicates that the data quality is inadequate, the source must immediately stop burning hazardous waste. The CEM data control effort must be increased until the data quality is acceptable before hazardous waste burning can resume.

a. In order to provide uniformity in the assessment and reporting of data quality, this procedure explicitly specifies the assessment methods for response drift and accuracy. The methods are based on procedures included in the applicable PSs provided in appendix B to part 60 of this chapter. These procedures also require the analysis of the EPA audit samples concurrent with certain reference method (RM) analyses as specified in the applicable RM's.

b. Because the control and corrective action function encompasses a variety of policies, specifications, standards, and corrective measures, this procedure treats QC requirements in general terms to allow each source owner or operator to develop a QC system that is most effective and efficient for the circumstances.

### **2. Definitions**

2.1 CEMS. The total equipment required for the determination of a pollutant concentration. The system consists of the following major subsystems:

2.1.1 Sample Interface. That portion of the CEMS used for one or more of the following: sample acquisition, sample transport, and sample

conditioning, or protection of the monitor from the effects of the stack effluent.

2.1.2 Pollutant Analyzer. That portion of the CEMS that senses the pollutant concentration and generates a proportional output.

2.1.3 Diluent Analyzer. That portion of the CEMS that senses the diluent gas ( $O_2$ ) and generates an output proportional to the gas concentration.

2.1.4 Data Recorder. That portion of the CEMS that provides a permanent record of the analyzer output. The data recorder may provide automatic data reduction and CEMS control capabilities.

2.2 Relative Accuracy (RA). The absolute mean difference between the pollutant concentration determined by the CEMS and the value determined by the reference method (RM) plus the 2.5 percent error confidence coefficient of a series of test divided by the mean of the RM tests or the applicable emission limit.

2.3 Calibration Drift (CD). The difference in the CEMS output readings from the established reference value after a stated period of operation during which no unscheduled maintenance, repair, or adjustment took place.

2.4 Zero Drift (ZD). The difference in CEMS output readings at the zero pollutant level after a stated period of operation during which no unscheduled maintenance, repair, or adjustment took place.

2.5 Calibration Standard. Calibration standards produce a known and unchanging response when presented to the pollutant analyzer portion of the CEMS, and are used to calibrate the drift or response of the analyzer.

2.6 Relative Accuracy Test Audit (RATA). Comparison of CEMS measurements to reference method measurements in order to evaluate relative accuracy following procedures and specification given in the appropriate PS.

2.7 Absolute Calibration Audit (ACA). Equivalent to calibration error (CE) test defined in the appropriate PS using NIST traceable calibration standards to challenge the CEMS and assess accuracy.

2.8 Rolling Average. The average emissions, based on some (specified) time period, calculated every minute from a 1-minute average of four measurements taken at 15-second intervals.

### 3. QA/QC Requirements

#### 3.1 QC Requirements.

a. Each owner or operator must develop and implement a QC program. At a minimum, each QC program must include written procedures describing

in detail complete, step-by-step procedures and operations for the following activities.

1. Checks for component failures, leaks, and other abnormal conditions.
2. Calibration of CEMS.
3. CD determination and adjustment of CEMS.
4. Integration of CEMS with the AWFCO system.
5. Preventive Maintenance of CEMS (including spare parts inventory).
6. Data recording, calculations, and reporting.
7. Checks of record keeping.
8. Accuracy audit procedures, including sampling and analysis methods.
9. Program of corrective action for malfunctioning CEMS.
10. Operator training and certification.
11. Maintaining and ensuring current certification or naming of cylinder gasses, metal solutions, and particulate samples used for audit and accuracy tests, daily checks, and calibrations.

b. Whenever excessive inaccuracies occur for two consecutive quarters, the current written procedures must be revised or the CEMS modified or replaced to correct the deficiency causing the excessive inaccuracies. These written procedures must be kept on record and available for inspection by the enforcement agency.

3.2 QA Requirements. Each source owner or operator must develop and implement a QA plan that includes, at a minimum, the following.

1. QA responsibilities (including maintaining records, preparing reports, reviewing reports).
2. Schedules for the daily checks, periodic audits, and preventive maintenance.
3. Check lists and data sheets.
4. Preventive maintenance procedures.
5. Description of the media, format, and location of all records and reports.
6. Provisions for a review of the CEMS data at least once a year. Based on the results of the review, the owner or operator must revise or update the QA plan, if necessary.



#### 4. CD and ZD Assessment and Daily System Audit

4.1 CD and ZD Requirement. Owners and operators must check, record, and quantify the ZD and the CD at least once daily (approximately 24 hours) in accordance with the method prescribed by the manufacturer. The CEMS calibration must, at a minimum, be adjusted whenever the daily ZD or CD exceeds the limits in the PSs. If, on any given ZD and/or CD check the ZD and/or CD exceed(s) two times the limits in the PSs, or if the cumulative adjustment to the ZD and/or CD (see Section 4.2) exceed(s) three times the limits in the PSs, hazardous waste burning must immediately cease and the CEMS must be serviced and recalibrated. Hazardous waste burning cannot resume until the owner or operator documents that the CEMS is in compliance with the PSs by carrying out an ACA.

4.2 Recording Requirements for Automatic ZD and CD Adjusting Monitors. Monitors that automatically adjust the data to the corrected calibration values must record the unadjusted concentration measurement prior to resetting the calibration, if performed, or record the amount of the adjustment.

4.3 Daily System Audit. The audit must include a review of the calibration check data, an inspection of the recording system, an inspection of the control panel warning lights, and an inspection of the sample transport and interface system (e.g., flowmeters, filters, etc.) as appropriate.

4.4 Data Recording and Reporting. All measurements from the CEMS must be retained in the operating record for at least 5 years.

#### 5. Performance Evaluation for CO, O<sub>2</sub>, and HC CEMS

CO, O<sub>2</sub>, and HC CEMS. An Absolute Calibration Audit (ACA) must be conducted quarterly, and a Relative Accuracy Test Audit (RATA) (if applicable, see sections 5.1 and 5.2) must be conducted yearly. An Interference Response Tests must be performed whenever an ACA or a RATA is conducted. When a performance test is also required under § 63.1207 to document compliance with emission standards, the RATA must coincide with the performance test. The audits must be conducted as follows.

5.1 Relative Accuracy Test Audit (RATA). This requirement applies to O<sub>2</sub> and CO CEMS. The RATA must be conducted at least yearly. Conduct the RATA as described in the RA test procedure (or alternate procedures section) described in the applicable PSs. In addition, analyze the appropriate performance audit samples received from the EPA as described in the applicable sampling methods.

5.2 Absolute Calibration Audit (ACA). The ACA must be conducted at least quarterly except in a quarter when a RATA (if applicable, see section 5.1) is conducted instead. Conduct an ACA as described in the calibration error (CE) test procedure described in the applicable PSs.

5.3 Interference Response Test. The interference response test must be conducted whenever an ACA or RATA is conducted. Conduct an interference response test as described in the applicable PSs.

5.4 Excessive Audit Inaccuracy. If the RA from the RATA or the CE from the ACA exceeds the criteria in the applicable PSs, hazardous waste burning must cease immediately. Hazardous waste burning cannot resume until the owner or operator takes corrective measures and audit the CEMS with a RATA to document that the CEMS is operating within the specifications.

## 6. Other Requirements

6.1 PSs. CEMS used by owners and operators of HWCs must comply with the following PSs in appendix B to part 60 of this chapter:

Table I: Performance Specifications for CEMS

CEMS	Performance Specification
CO	4B
O <sub>2</sub>	4B
THC	8A

6.2 Downtime due to Calibration. Facilities may continue to burn hazardous waste for a maximum of 20 minutes while calibrating the CEMS. If all CEMS are calibrated at once, the facility must have twenty minutes to calibrate all the CEMS. If CEMS are calibrated individually, the facility must have twenty minutes to calibrate each CEMS. If the CEMS are calibrated individually, other CEMS must be operational while the individual CEMS is being calibrated.

## 6.3 Span of the CEMS.

6.3.1 CO CEMS. The CO CEM must have two ranges, a low range with a span of 200 ppmv and a high range with a span of 3000 ppmv at an oxygen correction factor of 1. A one-range CEM may be used, but it must meet the PSs for the low range in the specified span of the low range.

6.3.2 O<sub>2</sub> CEMS. The O<sub>2</sub> CEM must have a span of 25 percent. The span may be higher than 25 percent if the O<sub>2</sub> concentration at the sampling point is greater than 25 percent.

6.3.3 HC CEMS. The HC CEM must have a span of 100 ppmv, expressed as propane, at an oxygen correction factor of 1.

6.3.4 CEMS Span Values. When the Oxygen Correction Factor is Greater than 2. When an owner or operator installs a CEMS at a location of high ambient air dilution, i.e., where the maximum oxygen correction factor as determined by the permitting agency is greater than 2, the owner or operator must install a CEM with a lower span(s),

proportionate to the larger oxygen correction factor, than those specified above.

6.3.5 Use of Alternative Spans. Owner or operators may request approval to use alternative spans and ranges to those specified. Alternate spans must be approved in writing in advance by the Administrator. In considering approval of alternative spans and ranges, the Administrator will consider that measurements beyond the span will be recorded as values at the maximum span for purposes of calculating rolling averages.

6.3.6 Documentation of Span Values. The span value must be documented by the CEMS manufacturer with laboratory data.

#### [6.4 Correction Factors]

6.4.1 Moisture Correction. Method 4 of appendix A, part 60 of this chapter, must be used to determine moisture content of the stack gasses.

6.4.2 Oxygen Correction Factor. Measured pollutant levels must be corrected for the amount of oxygen in the stack according to the following formula:

Where:  $P_c = P_m \times 14 / (E - Y)$

Pc = concentration of the pollutant or standard corrected to 7% O<sub>2</sub>, dry basis;

Pm = measured concentration of the pollutant, dry basis;

E = volume fraction of oxygen in the combustion air fed into the device, on a dry basis (normally 21 percent or 0.21 if only air is fed);

Y = measured fraction of oxygen on a dry basis at the sampling point.

The oxygen correction factor is:

$$OCF = 14 / (E - Y)$$

6.4.3 Temperature Correction. Correction values for temperature are obtainable from standard reference materials.

6.5 Rolling Average. A rolling average is the arithmetic average of all 1-minute averages over the averaging period.

6.5.1 One-Minute (1-minute) Average for CO and HHC CEMS. One-minute averages are the arithmetic average of the four most recent 15-second observations and must be calculated using the following equation:

$$\bar{c} = \sum_{i=1}^4 \frac{c_i}{4}$$

Where:

c = the 1-minute average  
 ci = a 15-second observation from the CEM

Fifteen second observations must not be rounded or smoothed. Fifteen-second observations may be disregarded only as a result of a failure in the CEMS and allowed in the source's quality assurance plan at the time of the CEMS failure. One-minute averages must not be rounded, smoothed, or disregarded.

6.5.2 Ten Minute Rolling Average Equation. The 10-minute rolling average must be calculated using the following equation:

$$C_{RA} = \sum_{i=1}^{10} \frac{c_i}{10}$$

Where:

CRA = The concentration of the standard, expressed as a rolling average  
 ci = a 1-minute average

6.5.3 Hourly Rolling Average Equation for CO and THC CEMS and OPLs. The rolling average, based on a specific number integer of hours, must be calculated using the following equation:

$$C_{RA} = \sum_{i=1}^{24} \frac{c_i}{60}$$

Where:

C<sub>RA</sub> = The concentration of the standard, expressed as a rolling average  
 c<sub>i</sub> = a 1-minute average

6.5.4 Averaging Periods for CEMS other than CO and THC. The averaging period for CEMS other than CO and THC CEMS must be calculated as a rolling average of all 1-hour values over the averaging period. An hourly average is comprised of four measurements taken at equally spaced time intervals, or at most every 15 minutes. Fewer than four measurements might be available within an hour for reasons such as facility downtime or CEMS calibration. If at least two measurements (30 minutes of data) are available, an hourly average must be calculated. The n-hour rolling average is calculated by averaging the n most recent hourly averages.

6.6 Units of the Standards for the Purposes of Recording and Reporting Emissions. Emissions must be recorded and reported expressed after correcting for oxygen, temperature, and moisture. Emissions must be reported in metric, but may also be reported in the English system of units, at 7% O<sub>2</sub>, 20°C, and on a dry basis.

6.7 Rounding and Significant Figures. Emissions must be rounded to two significant figures using ASTM procedure E-29-90 or its successor. Rounding must be avoided prior to rounding for the reported value.

## 7. Bibliography

1. 40 CFR part 60, appendix F, "Quality Assurance Procedures: Procedure 1. Quality Assurance Requirements for Gas continuous Emission Monitoring Systems Used For Compliance Determination".

[64 FR 53038, Sept. 30, 1999, as amended at 65 FR 42301, July 10, 2000]

### **Part 260 Hazardous Waste Management System: General** **Subpart B Definitions** **§ 260.10 Definitions**

Boiler means an enclosed device using controlled flame combustion and having the following characteristics:

(1)

(i) The unit must have physical provisions for recovering and exporting thermal energy in the form of steam, heated fluids, or heated gases; and

(ii) The unit's combustion chamber and primary energy recovery sections(s) must be of integral design. To be of integral design, the combustion chamber and the primary energy recovery section(s) (such as waterwalls and superheaters) must be physically formed into one manufactured or assembled unit. A unit in which the combustion chamber and the primary energy recovery section(s) are joined only by ducts or connections carrying flue gas is not integrally designed; however, secondary energy recovery equipment (such as economizers or air preheaters) need not be physically formed into the same unit as the combustion chamber and the primary energy recovery section. The following units are not precluded from being boilers solely because they are not of integral design: process heaters (units that transfer energy directly to a process stream), and fluidized bed combustion units; and

(iii) While in operation, the unit must maintain a thermal energy recovery efficiency of at least 60 percent, calculated in terms of the recovered energy compared with the thermal value of the fuel; and

(iv) The unit must export and utilize at least 75 percent of the recovered energy, calculated on an annual basis. In this calculation, no credit shall be given for recovered heat used internally in the same unit. (Examples of internal use are the preheating of fuel or combustion air, and the driving of induced or forced draft fans or feedwater pumps); or

(2) The unit is one which the Regional Administrator has determined, on a case-by-case basis, to be a boiler, after considering the standards in § 260.32.

Incinerator means any enclosed device that:

(1) Uses controlled flame combustion and neither meets the criteria for classification as a boiler, sludge dryer, or carbon regeneration unit, nor is listed as an industrial furnace; or

(2) Meets the definition of infrared incinerator or plasma arc incinerator.

Industrial furnace means any of the following enclosed devices that are integral components of manufacturing processes and that use thermal treatment to accomplish recovery of materials or energy:

\* \* \* \*

(12) Halogen acid furnaces (HAFs) for the production of acid from halogenated hazardous waste generated by chemical production facilities where the furnace is located on the site of a chemical production facility, the acid product has a halogen acid content of at least 3%, the acid product is used in a manufacturing process, and, except for hazardous waste burned as fuel, hazardous waste fed to the furnace has a minimum halogen content of 20% as-generated.

Infrared incinerator means any enclosed device that uses electric powered resistance heaters as a source of radiant heat followed by an afterburner using controlled flame combustion and which is not listed as an industrial furnace.

Plasma arc incinerator means any enclosed device using a high intensity electrical discharge or arc as a source of heat followed by an afterburner using controlled flame combustion and which is not listed as an industrial furnace.

## **PART 261 Identification and Listing of Hazardous Waste**

### **Subpart A General**

#### **§ 261.1 Purpose and scope.**

\* \* \* \*

(c) For the purposes of §§ 261.2 and 261.6:

(1) A "spent material" is any material that has been used and as a result of contamination can no longer serve the purpose for which it was produced without processing;

(2) "Sludge" has the same meaning used in § 260.10 of this chapter;

(3) A "by-product" is a material that is not one of the primary products of a production process and is not solely or separately produced by the production process. Examples are process residues such

as slags or distillation column bottoms. The term does not include a co-product that is produced for the general public's use and is ordinarily used in the form it is produced by the process.

(4) A material is "reclaimed" if it is processed to recover a usable product, or if it is regenerated. Examples are recovery of lead values from spent batteries and regeneration of spent solvents.

(5) A material is "used or reused" if it is either:

(i) Employed as an ingredient (including use as an intermediate) in an industrial process to make a product (for example, distillation bottoms from one process used as feedstock in another process). However, a material will not satisfy this condition if distinct components of the material are recovered as separate end products (as when metals are recovered from metal-containing secondary materials); or

(ii) Employed in a particular function or application as an effective substitute for a commercial product (for example, spent pickle liquor used as phosphorous precipitant and sludge conditioner in wastewater treatment).

(6) "Scrap metal" is bits and pieces of metal parts (e.g.,) bars, turnings, rods, sheets, wire) or metal pieces that may be combined together with bolts or soldering (e.g., radiators, scrap automobiles, railroad box cars), which when worn or superfluous can be recycled.

(7) A material is "recycled" if it is used, reused, or reclaimed.

(8) A material is "accumulated speculatively" if it is accumulated before being recycled. A material is not accumulated speculatively, however, if the person accumulating it can show that the material is potentially recyclable and has a feasible means of being recycled; and that—during the calendar year (commencing on January 1)—the amount of material that is recycled, or transferred to a different site for recycling, equals at least 75 percent by weight or volume of the amount of that material accumulated at the beginning of the period. In calculating the percentage of turnover, the 75 percent requirement is to be applied to each material of the same type (e.g., slags from a single smelting process) that is recycled in the same way (i.e., from which the same material is recovered or that is used in the same way). Materials accumulating in units that would be exempt from regulation under § 261.4(c) are not to be included in making the calculation. (Materials that are already defined as solid wastes also are not to be included in making the calculation.) Materials are no longer in this category once they are removed from accumulation for recycling, however.

(9) "Excluded scrap metal" is processed scrap metal, unprocessed home scrap metal, and unprocessed prompt scrap metal.

(10) "Processed scrap metal" is scrap metal which has been manually or physically altered to either separate it into distinct materials to enhance economic value or to improve the handling of materials. Processed scrap metal includes, but is not limited to scrap metal which has been baled, shredded, sheared, chopped, crushed, flattened, cut, melted, or separated by metal type (i.e., sorted), and, fines, drosses and related materials which have been agglomerated. (Note: shredded circuit boards being sent for recycling are not considered processed scrap metal. They are covered under the exclusion from the definition of solid waste for shredded circuit boards being recycled (§ 261.4(a)(13)).

(11) "Home scrap metal" is scrap metal as generated by steel mills, foundries, and refineries such as turnings, cuttings, punchings, and borings.

(12) "Prompt scrap metal" is scrap metal as generated by the metal working/fabrication industries and includes such scrap metal as turnings, cuttings, punchings, and borings. Prompt scrap is also known as industrial or new scrap metal.

[45 FR 33119, May 19, 1980, as amended at 48 FR 14293, Apr. 1, 1983; 50 FR 663, Jan. 4, 1985; 51 FR 10174, Mar. 24, 1986; 51 FR 40636, Nov. 7, 1986; 62 FR 26018, May 12, 1997]

### **§ 261.3 Definition of hazardous waste.**

(a) A solid waste, as defined in § 261.2, is a hazardous waste if:

(1) It is not excluded from regulation as a hazardous waste under § 261.4(b); and

(2) It meets any of the following criteria:

(i) It exhibits any of the characteristics of hazardous waste identified in subpart C of this part. However, any mixture of a waste from the extraction, beneficiation, and processing of ores and minerals excluded under § 261.4(b)(7) and any other solid waste exhibiting a characteristic of hazardous waste under subpart C is a hazardous waste only if it exhibits a characteristic that would not have been exhibited by the excluded waste alone if such mixture had not occurred, or if it continues to exhibit any of the characteristics exhibited by the non-excluded wastes prior to mixture. Further, for the purposes of applying the Toxicity Characteristic to such mixtures, the mixture is also a hazardous waste if it exceeds the maximum concentration for any contaminant listed in table I to § 261.24 that would not have been exceeded by the excluded waste alone if the mixture had not occurred or if it continues to exceed the maximum concentration for any contaminant exceeded by the nonexempt waste prior to mixture.



(ii) It is listed in subpart D of this part and has not been excluded from the lists in subpart D of this part under §§ 260.20 and 260.22 of this chapter.

(iii) [Reserved]

(iv) It is a mixture of solid waste and one or more hazardous wastes listed in subpart D of this part and has not been excluded from paragraph (a)(2) of this section under §§ 260.20 and 260.22, paragraph (g) of this section, or paragraph (h) of this section; however, the following mixtures of solid wastes and hazardous wastes listed in subpart D of this part are not hazardous wastes (except by application of paragraph (a)(2)(i) or (ii) of this section) if the generator can demonstrate that the mixture consists of wastewater the discharge of which is subject to regulation under either section 402 or section 307(b) of the Clean Water Act (including wastewater at facilities which have eliminated the discharge of wastewater) and;

(A) One or more of the following spent solvents listed in § 261.31 –benzene, carbon tetrachloride, tetrachloroethylene, trichloroethylene or the scrubber waters derived-from the combustion of these spent solvents – Provided, That the maximum total weekly usage of these solvents (other than the amounts that can be demonstrated not to be discharged to wastewater) divided by the average weekly flow of wastewater into the headworks of the facility's wastewater treatment or pretreatment system does not exceed 1 part per million, OR the total measured concentration of these solvents entering the headworks of the facility's wastewater treatment system (at facilities subject to regulation under the Clean Air Act, as amended, at 40 CFR parts 60, 61, or 63, or at facilities subject to an enforceable limit in a federal operating permit that minimizes fugitive emissions), does not exceed 1 part per million on an average weekly basis. Any facility that uses benzene as a solvent and claims this exemption must use an aerated biological wastewater treatment system and must use only lined surface impoundments or tanks prior to secondary clarification in the wastewater treatment system. Facilities that choose to measure concentration levels must file a copy of their sampling and analysis plan with the Regional Administrator, or State Director, as the context requires, or an authorized representative ("Director" as defined in 40 CFR § 270.2). A facility must file a copy of a revised sampling and analysis plan only if the initial plan is rendered inaccurate by changes in the facility's operations. The sampling and analysis plan must include the monitoring point location (headworks), the sampling frequency and methodology, and a list of constituents to be monitored. A facility is eligible for the direct monitoring option once they receive confirmation that the sampling and analysis plan has been received by the Director. The Director may reject the sampling and analysis plan if he/she finds that, the sampling and analysis plan fails to include the above information; or the plan parameters would not enable the facility to calculate the weekly average concentration of these chemicals accurately. If the Director rejects the sampling and analysis plan or if the Director finds that the facility is not following the sampling and analysis

plan, the Director shall notify the facility to cease the use of the direct monitoring option until such time as the bases for rejection are corrected; or

(B) One or more of the following spent solvents listed in § 261.31 -methylene chloride, 1,1,1-trichloroethane, chlorobenzene, o-dichlorobenzene, cresols, cresylic acid, nitrobenzene, toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, spent chlorofluorocarbon solvents, 2-ethoxyethanol, or the scrubber waters derived-from the combustion of these spent solvents-Provided That the maximum total weekly usage of these solvents (other than the amounts that can be demonstrated not to be discharged to wastewater) divided by the average weekly flow of wastewater into the headworks of the facility's wastewater treatment or pretreatment system does not exceed 25 ppm, OR the total measured concentration of these solvents entering the headworks of the facility's wastewater treatment system (at facilities subject to regulation under the Clean Air Act as amended, at 40 CFR parts 60, 61, or 63, or at facilities subject to an enforceable limit in a federal operating permit that minimizes fugitive emissions), does not exceed 25 ppm on an average weekly basis. Facilities that choose to measure concentration levels must file a copy of their sampling and analysis plan with the Regional Administrator, or State Director, as the context requires, or an authorized representative ("Director" as defined in 40 CFR § 270.2). A facility must file a copy of a revised sampling and analysis plan only if the initial plan is rendered inaccurate by changes in the facility's operations. The sampling and analysis plan must include the monitoring point location (headworks), the sampling frequency and methodology, and a list of constituents to be monitored. A facility is eligible for the direct monitoring option once they receive confirmation that the sampling and analysis plan has been received by the Director. The Director may reject the sampling and analysis plan if he/she finds that, the sampling and analysis plan fails to include the above information; or the plan parameters would not enable the facility to calculate the weekly average concentration of these chemicals accurately. If the Director rejects the sampling and analysis plan or if the Director finds that the facility is not following the sampling and analysis plan, the Director shall notify the facility to cease the use of the direct monitoring option until such time as the bases for rejection are corrected; or

(C) One of the following wastes listed in § 261.32, provided that the wastes are discharged to the refinery oil recovery sewer before primary oil/water/solids separation-heat exchanger bundle cleaning sludge from the petroleum refining industry (EPA Hazardous Waste No. K050), crude oil storage tank sediment from petroleum refining operations (EPA Hazardous Waste No. K169), clarified slurry oil tank sediment and/or in-line filter/separation solids from petroleum refining operations (EPA Hazardous Waste No. K170), spent hydrotreating catalyst (EPA Hazardous Waste No. K171), and spent hydrotreating catalyst (EPA Hazardous Waste No. K172); or

(D) A discarded hazardous waste, commercial chemical product, or chemical intermediate listed in §§ 261.31 through 261.33, arising from de minimis losses of these materials. For purposes of this paragraph (a)(2)(iv)(D), de minimis losses are inadvertent releases to a wastewater treatment system, including those from normal material handling operations (e.g., spills from the unloading or transfer of materials from bins or other containers, leaks from pipes, valves or other devices used to transfer materials); minor leaks of process equipment, storage tanks or containers; leaks from well maintained pump packings and seals; sample purgings; relief device discharges; discharges from safety showers and rinsing and cleaning of personal safety equipment; and rinsate from empty containers or from containers that are rendered empty by that rinsing. Any manufacturing facility that claims an exemption for de minimis quantities of wastes listed in §§ 261.31 through 261.32, or any nonmanufacturing facility that claims an exemption for de minimis quantities of wastes listed in subpart D of this part must either have eliminated the discharge of wastewaters or have included in its Clean Water Act permit application or submission to its pretreatment control authority the constituents for which each waste was listed (in 40 CFR 261 appendix VII) of this part; and the constituents in the table "Treatment Standards for Hazardous Wastes" in 40 CFR § 268.40 for which each waste has a treatment standard (i.e., Land Disposal Restriction constituents). A facility is eligible to claim the exemption once the permit writer or control authority has been notified of possible de minimis releases via the Clean Water Act permit application or the pretreatment control authority submission. A copy of the Clean Water permit application or the submission to the pretreatment control authority must be placed in the facility's on-site files; or

(E) Wastewater resulting from laboratory operations containing toxic (T) wastes listed in subpart D of this part, Provided, That the annualized average flow of laboratory wastewater does not exceed one percent of total wastewater flow into the headworks of the facility's wastewater treatment or pre-treatment system or provided the wastes, combined annualized average concentration does not exceed one part per million in the headworks of the facility's wastewater treatment or pre-treatment facility. Toxic (T) wastes used in laboratories that are demonstrated not to be discharged to wastewater are not to be included in this calculation; or

(F) One or more of the following wastes listed in § 261.32—wastewaters from the production of carbamates and carbamoyl oximes (EPA Hazardous Waste No. K157)—Provided that the maximum weekly usage of formaldehyde, methyl chloride, methylene chloride, and triethylamine (including all amounts that cannot be demonstrated to be reacted in the process, destroyed through treatment, or is recovered, i.e., what is discharged or volatilized) divided by the average weekly flow of process wastewater prior to any dilution into the headworks of the facility's wastewater treatment system does not exceed a total of 5 ppmW OR the total measured concentration of these chemicals entering the headworks of the facility's wastewater treatment system (at

facilities subject to regulation under the Clean Air Act as amended, at 40 CFR parts 60, 61, or 63, or at facilities subject to an enforceable limit in a federal operating permit that minimizes fugitive emissions), does not exceed 5 ppm on an average weekly basis. Facilities that choose to measure concentration levels must file copy of their sampling and analysis plan with the Regional Administrator, or State Director, as the context requires, or an authorized representative ("Director" as defined in 40 CFR § 270.2). A facility must file a copy of a revised sampling and analysis plan only if the initial plan is rendered inaccurate by changes in the facility's operations. The sampling and analysis plan must include the monitoring point location (headworks), the sampling frequency and methodology, and a list of constituents to be monitored. A facility is eligible for the direct monitoring option once they receive confirmation that the sampling and analysis plan has been received by the Director. The Director may reject the sampling and analysis plan if he/she finds that, the sampling and analysis plan fails to include the above information; or the plan parameters would not enable the facility to calculate the weekly average concentration of these chemicals accurately. If the Director rejects the sampling and analysis plan or if the Director finds that the facility is not following the sampling and analysis plan, the Director shall notify the facility to cease the use of the direct monitoring option until such time as the bases for rejection are corrected; or

(G) Wastewaters derived-from the treatment of one or more of the following wastes listed in § 261.32 – organic waste (including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates) from the production of carbamates and carbamoyl oximes (EPA Hazardous Waste No. K156).—Provided, that the maximum concentration of formaldehyde, methyl chloride, methylene chloride, and triethylamine prior to any dilutions into the headworks of the facility's wastewater treatment system does not exceed a total of 5 mg/L OR the total measured concentration of these chemicals entering the headworks of the facility's wastewater treatment system (at facilities subject to regulation under the Clean Air Act as amended, at 40 CFR parts 60, 61, or 63, or at facilities subject to an enforceable limit in a federal operating permit that minimizes fugitive emissions), does not exceed 5 mg/L on an average weekly basis. Facilities that choose to measure concentration levels must file copy of their sampling and analysis plan with the Regional Administrator, or State Director, as the context requires, or an authorized representative ("Director" as defined in 40 CFR § 270.2). A facility must file a copy of a revised sampling and analysis plan only if the initial plan is rendered inaccurate by changes in the facility's operations. The sampling and analysis plan must include the monitoring point location (headworks), the sampling frequency and methodology, and a list of constituents to be monitored. A facility is eligible for the direct monitoring option once they receive confirmation that the sampling and analysis plan has been received by the Director. The Director may reject the sampling and analysis plan if he/she finds that, the sampling and analysis plan fails to include the above information; or the plan parameters would not enable the

facility to calculate the weekly average concentration of these chemicals accurately. If the Director rejects the sampling and analysis plan or if the Director finds that the facility is not following the sampling and analysis plan, the Director shall notify the facility to cease the use of the direct monitoring option until such time as the bases for rejection are corrected.

(v) Rebuttable presumption for used oil. Used oil containing more than 1000 ppm total halogens is presumed to be a hazardous waste because it has been mixed with halogenated hazardous waste listed in subpart D of part 261 of this chapter. Persons may rebut this presumption by demonstrating that the used oil does not contain hazardous waste (for example, to show that the used oil does not contain significant concentrations of halogenated hazardous constituents listed in appendix VIII of part 261 of this chapter).

(b) A solid waste which is not excluded from regulation under paragraph (a)(1) of this section becomes a hazardous waste when any of the following events occur:

(1) In the case of a waste listed in subpart D of this part, when the waste first meets the listing description set forth in subpart D of this part.

(2) In the case of a mixture of solid waste and one or more listed hazardous wastes, when a hazardous waste listed in subpart D is first added to the solid waste.

(3) In the case of any other waste (including a waste mixture), when the waste exhibits any of the characteristics identified in subpart C of this part.

(c) Unless and until it meets the criteria of paragraph (d) of this section:

(1) A hazardous waste will remain a hazardous waste.

(2)

(i) Except as otherwise provided in paragraph (c)(2)(ii), (g) or (h) of this section, any solid waste generated from the treatment, storage, or disposal of a hazardous waste, including any sludge, spill residue, ash emission control dust, or leachate (but not including precipitation run-off) is a hazardous waste. (However, materials that are reclaimed from solid wastes and that are used beneficially are not solid wastes and hence are not hazardous wastes under this provision unless the reclaimed material is burned for energy recovery or used in a manner constituting disposal.)

(ii) The following solid wastes are not hazardous even though they are generated from the treatment, storage, or disposal of a hazardous waste, unless they exhibit one or more of the characteristics of hazardous waste:

(A) Waste pickle liquor sludge generated by lime stabilization of spent pickle liquor from the iron and steel industry (SIC Codes 331 and 332).

(B) Waste from burning any of the materials exempted from regulation by § 261.6(a)(3)(iii) and (iv).

(C)

(1) Nonwastewater residues, such as slag, resulting from high temperature metals recovery (HTMR) processing of K061, K062 or F006 waste, in units identified as rotary kilns, flame reactors, electric furnaces, plasma arc furnaces, slag reactors, rotary hearth furnace/electric furnace combinations or industrial furnaces (as defined in paragraphs (6), (7), and (13) of the definition for "Industrial furnace" in 40 CFR § 260.10), that are disposed in subtitle D units, provided that these residues meet the generic exclusion levels identified in the tables in this paragraph for all constituents, and exhibit no characteristics of hazardous waste. Testing requirements must be incorporated in a facility's waste analysis plan or a generator's self-implementing waste analysis plan; at a minimum, composite samples of residues must be collected and analyzed quarterly and/or when the process or operation generating the waste changes. Persons claiming this exclusion in an enforcement action will have the burden of proving by clear and convincing evidence that the material meets all of the exclusion requirements.

Constituent	Maximum for any single composite sample TCLP (mg/l)
Generic exclusion levels for K061 and K062 nonwastewater HTMR residues	
Antimony	0.10
Barium	7.6
Beryllium	0.010
Cadmium	0.050
Chromium (total)	0.33
Lead	0.15
Mercury	0.009
Nickel	1.0
Selenium	0.16
Silver	0.30
Thallium	0.020
Zinc	70
Generic exclusion levels for F006 nonwastewater HTMR residues	
Antimony	0.10
Barium	0.50

Beryllium	7.6
Cadmium	0.010
Chromium (total)	0.33
Cyanide (total) (mg/kg)	1.8
Lead	0.15
Mercury	0.009
Nickel	1.0
Selenium	0.16
Silver	0.30
Thallium	0.020
Zinc	70

(2) A one-time notification and certification must be placed in the facility's files and sent to the EPA region or authorized state for K061, K062 or F006 HTMR residues that meet the generic exclusion levels for all constituents and do not exhibit any characteristics that are sent to subtitle D units. The notification and certification that is placed in the generators or treaters files must be updated if the process or operation generating the waste changes and/or if the subtitle D unit receiving the waste changes. However, the generator or treater need only notify the EPA region or an authorized state on an annual basis if such changes occur. Such notification and certification should be sent to the EPA region or authorized state by the end of the calendar year, but no later than December 31. The notification must include the following information: The name and address of the subtitle D unit receiving the waste shipments; the EPA Hazardous Waste Number(s) and treatability group(s) at the initial point of generation; and, the treatment standards applicable to the waste at the initial point of generation. The certification must be signed by an authorized representative and must state as follows: "I certify under penalty of law that the generic exclusion levels for all constituents have been met without impermissible dilution and that no characteristic of hazardous waste is exhibited. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment."

(D) Biological treatment sludge from the treatment of one of the following wastes listed in § 261.32 – organic waste (including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates) from the production of carbamates and carbamoyl oximes (EPA Hazardous Waste No. K156), and wastewaters from the production of carbamates and carbamoyl oximes (EPA Hazardous Waste No. K157).

(E) Catalyst inert support media separated from one of the following wastes listed in § 261.32 – Spent hydrotreating catalyst (EPA Hazardous Waste No. K171), and Spent hydrorefining catalyst (EPA Hazardous Waste No. K172).

(d) Any solid waste described in paragraph (c) of this section is not a hazardous waste if it meets the following criteria:

(1) In the case of any solid waste, it does not exhibit any of the characteristics of hazardous waste identified in subpart C of this part. (However, wastes that exhibit a characteristic at the point of generation may still be subject to the requirements of part 268, even if they no longer exhibit a characteristic at the point of land disposal.)

(2) In the case of a waste which is a listed waste under subpart D of this part, contains a waste listed under subpart D of this part or is derived from a waste listed in subpart D of this part, it also has been excluded from paragraph (c) of this section under §§ 260.20 and 260.22 of this chapter.

(e) [Reserved]

(f) Notwithstanding paragraphs (a) through (d) of this section and provided the debris as defined in part 268 of this chapter does not exhibit a characteristic identified at subpart C of this part, the following materials are not subject to regulation under 40 CFR parts 260, 261 to 266, 268, or 270:

(1) Hazardous debris as defined in part 268 of this chapter that has been treated using one of the required extraction or destruction technologies specified in Table 1 of § 268.45 of this chapter; persons claiming this exclusion in an enforcement action will have the burden of proving by clear and convincing evidence that the material meets all of the exclusion requirements; or

(2) Debris as defined in part 268 of this chapter that the Regional Administrator, considering the extent of contamination, has determined is no longer contaminated with hazardous waste.

(g)

(1) A hazardous waste that is listed in subpart D of this part solely because it exhibits one or more characteristics of ignitability as defined under § 261.21, corrosivity as defined under § 261.22, or reactivity as defined under § 261.23 is not a hazardous waste, if the waste no longer exhibits any characteristic of hazardous waste identified in subpart C of this part.

(2) The exclusion described in paragraph (g) (1) of this section also pertains to:

(i) Any mixture of a solid waste and a hazardous waste listed in subpart D of this part solely because it exhibits the characteristics of ignitability, corrosivity, or reactivity as regulated under paragraph (a) (2) (iv) of this section; and



(ii) Any solid waste generated from treating, storing, or disposing of a hazardous waste listed in subpart D of this part solely because it exhibits the characteristics of ignitability, corrosivity, or reactivity as regulated under paragraph (c)(2)(i) of this section.

(3) Wastes excluded under this section are subject to part 268 of this chapter (as applicable), even if they no longer exhibit a characteristic at the point of land disposal.

(4) Any mixture of a solid waste excluded from regulation under § 261.4(b)(7) and a hazardous waste listed in subpart D of this part solely because it exhibits one or more of the characteristics of ignitability, corrosivity, or reactivity as regulated under paragraph (a)(2)(iv) of this section is not a hazardous waste, if the mixture no longer exhibits any characteristic of hazardous waste identified in subpart C of this part for which the hazardous waste listed in subpart D of this part was listed.

(h)

(1) Hazardous waste containing radioactive waste is no longer a hazardous waste when it meets the eligibility criteria and conditions of 40 CFR part 266, Subpart N ("eligible radioactive mixed waste").

(2) The exemption described in paragraph (h)(1) of this section also pertains to:

(i) Any mixture of a solid waste and an eligible radioactive mixed waste; and

(ii) Any solid waste generated from treating, storing, or disposing of an eligible radioactive mixed waste.

(3) Waste exempted under this section must meet the eligibility criteria and specified conditions in 40 CFR § 266.225 and 40 CFR § 266.230 (for storage and treatment) and in 40 CFR § 266.310 and 40 CFR § 266.315 (for transportation and disposal). Waste that fails to satisfy these eligibility criteria and conditions is regulated as hazardous waste.

[57 FR 7632, Mar. 3, 1992; 57 FR 23063, June 1, 1992, as amended at 57 FR 37263, Aug. 18, 1992; 57 FR 41611, Sept. 10, 1992; 57 FR 49279, Oct. 30, 1992; 59 FR 38545, July 28, 1994; 60 FR 7848, Feb. 9, 1995; 63 FR 28637, May 26, 1998; 63 FR 42184, Aug. 6, 1998; 66 FR 27297, May 16, 2001; 66 FR 50333, Oct. 3, 2001; 70 FR 34561, June 14, 2005; 70 FR 57784, Oct. 4, 2005]

## **Subpart D Lists of Hazardous Wastes**

### **§ 261.31 Hazardous wastes from non-specific sources.**

(a) The following solid wastes are listed hazardous wastes from non-specific sources unless they are excluded under §§ 260.20 and 260.22 and listed in Appendix IX.

Industry and EPA hazardous waste No.	Hazardous waste	Hazard code
F020	Wastes (except wastewater and spent carbon from HCl purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tri- or tetrachlorophenol, or of intermediates used to produce their pesticide derivatives. (This listing does not include wastes from the production of Hexachlorophene from highly purified 2,4,5-trichlorophenol.)	(H)
F021	Wastes (except wastewater and spent carbon from HCl purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of pentachlorophenol, or of intermediates used to produce its derivatives.	(H)
F022	Wastes (except wastewater and spent carbon from HCl purification) from the manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tetra-, penta-, or hexachlorobenzenes under alkaline conditions.	(H)
F023	Wastes (except wastewater and spent carbon from HCl purification) from the production of materials on equipment previously used for the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tri- and tetrachlorophenols. (This listing does not include wastes from equipment used only for the production or use of Hexachlorophene from highly purified 2,4,5-trichlorophenol.)	(H)
F026	Wastes (except wastewater and spent carbon from HCl purification) from the production of materials on equipment previously used for the manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tetra-, penta-, or hexachlorobenzene under alkaline conditions.	(H)
F027	Discarded unused formulations containing tri-, tetra-, or pentachlorophenol or discarded unused formulations containing compounds derived from these chlorophenols. (This listing does not include formulations containing Hexachlorophene synthesized from prepurified 2,4,5-trichlorophenol as the sole component.)	(H)

**Part 266 Standards for the Management of Specific Hazardous Wastes  
and Specific Types of Hazardous Waste Management Facilities  
Subpart H Hazardous Waste Burned in Boilers and Industrial Furnaces**

**§ 266.100 Applicability.**

\* \* \* \*

(b) Integration of the MACT standards.

\* \* \* \*

(3) If you own or operate a boiler or HCl production furnace that is an area source under § 63.2 of this chapter and you elect not to comply with the emission standards under §§ 63.1216, 63.1217, and 63.1218 of this chapter for PM, SVMs and LVMs, and total chlorine, you also remain subject to:

(i) Section 266.105 – Standards to control PM;

(ii) Section 266.106 – Standards to control metals emissions, except for mercury; and

(iii) Section 266.107 – Standards to control HCl/Cl<sub>2</sub>.

(c) The following hazardous wastes and facilities are not subject to regulation under this subpart:

\* \* \* \*

(3) Hazardous wastes that are exempt from regulation under §§ 261.4 and 261.6(a)(3) (iii) and (iv) of this chapter, and hazardous wastes that are subject to the special requirements for conditionally exempt small quantity generators under § 261.5 of this chapter; and

\* \* \* \* \*

**§ 266.108 Small quantity on-site burner exemption.**

(a) Exempt quantities. Owners and operators of facilities that burn hazardous waste in an on-site boiler or industrial furnace are exempt from the requirements of this subpart provided that:

(1) The quantity of hazardous waste burned in a device for a calendar month does not exceed the limits provided in the following table based on the terrain-adjusted effective stack height as defined in § 266.106(b) (3) :

Exempt Quantities for Small Quantity Burner Exemption

Terrain-adjusted effective stack height of device (meters)	Allowable hazardous waste burning rate (gallons/month)	Terrain-adjusted effective stack height of device (meters)	Allowable hazardous waste burning rate (gallons/month)
0 to 3.9	0	40.0 to 44.9	210
4.0 to 5.9	13	45.0 to 49.9	260
6.0 to 7.9	18	50.0 to 54.9	330
8.0 to 9.9	27	55.0 to 59.9	400

10.0 to 11.9	40	60.0 to 64.9	490
12.0 to 13.9	48	65.0 to 69.9	610
14.0 to 15.9	59	70.0 to 74.9	680
16.0 to 17.9	69	75.0 to 79.9	760
18.0 to 19.9	76	80.0 to 84.9	850
20.0 to 21.9	84	85.0 to 89.9	960
22.0 to 23.9	93	90.0 to 94.9	1,100
24.0 to 25.9	100	95.0 to 99.9	1,200
26.0 to 27.9	110	100.0 to 104.9	1,300
28.0 to 29.9	130	105.0 to 109.9	1,500
30.0 to 34.9	140	110.0 to 114.9	1,700
35.0 to 39.9	170	115.0 or greater	1,900

(2) The maximum hazardous waste firing rate does not exceed at any time 1 percent of the total fuel requirements for the device (hazardous waste plus other fuel) on a total heat input or mass input basis, whichever results in the lower mass feed rate of hazardous waste.

(3) The hazardous waste has a minimum heating value of 5,000 Btu/lb, as generated; and

(4) The hazardous waste fuel does not contain (and is not derived from) EPA Hazardous Waste Nos. F020, F021, F022, F023, F026, or F027.

(b) Mixing with nonhazardous fuels. If hazardous waste fuel is mixed with a nonhazardous fuel, the quantity of hazardous waste before such mixing is used to comply with paragraph (a).

(c) Multiple stacks. If an owner or operator burns hazardous waste in more than one on-site boiler or industrial furnace exempt under this section, the quantity limits provided by paragraph (a)(1) of this section are implemented according to the following equation:

$$\sum_{i=1}^n \frac{\text{Actual Quantity Burned}_{(i)}}{\text{Allowable Quantity Burned}_{(i)}} \leq 1.0$$

where:

n means the number of stacks;

Actual Quantity Burned means the waste quantity burned per month in device "i";

Allowable Quantity Burned means the maximum allowable exempt quantity for stack "i" from the table in (a)(1) above.

Note: Hazardous wastes that are subject to the special requirements for small quantity generators under § 261.5 of this chapter may be burned in an off-site device under the exemption provided by § 266.108, but must be included in the quantity determination for the exemption.

(d) Notification requirements. The owner or operator of facilities qualifying for the small quantity burner exemption under this section must provide a one-time signed, written notice to EPA indicating the following:

(1) The combustion unit is operating as a small quantity burner of hazardous waste;

(2) The owner and operator are in compliance with the requirements of this section; and

(3) The maximum quantity of hazardous waste that the facility may burn per month as provided by § 266.108(a)(1).

(e) Recordkeeping requirements. The owner or operator must maintain at the facility for at least three years sufficient records documenting compliance with the hazardous waste quantity, firing rate, and heating value limits of this section. At a minimum, these records must indicate the quantity of hazardous waste and other fuel burned in each unit per calendar month, and the heating value of the hazardous waste.

[56 FR 7208, Feb. 21, 1991; 56 FR 32690, July 17, 1991, as amended at 56 FR 42515, Aug. 27, 1991; 57 FR 38566, Aug. 25, 1992]

## Appendix IX      Methods Manual for Compliance With the BIF Regulations

\* \* \* \*

### 3.0 Sampling and Analytical Methods

\* \* \* \*

#### Section 3.0 Sampling and Analytical Methods

Note: The sampling and analytical methods to the BIF manual are published in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846.

\* \* \* \*

[59 FR 48042, Sept. 19, 1994, as amended at 71 FR 40278, July 14, 2006]

## **PART 270    EPA ADMINISTERED PERMIT PROGRAMS: THE HAZARDOUS WASTE PERMIT PROGRAM**

### **Subpart I    Integration with Maximum Achievable Control Technology (MACT) Standards**

**§ 270.235 Options for incinerators, cement kilns, lightweight aggregate kilns, solid fuel boilers, liquid fuel boilers and hydrochloric acid production furnaces to minimize emissions from startup, shutdown, and malfunction events.**

#### (a) Facilities with existing permits

(1) Revisions to permit conditions after documenting compliance with MACT. The owner or operator of a RCRA-permitted incinerator, cement kiln, lightweight aggregate kiln, solid fuel boiler, liquid fuel boiler, or hydrochloric acid production furnace may request that the Director address permit conditions that minimize emissions from startup, shutdown, and malfunction events under any of the following options when requesting removal of permit conditions that are no longer applicable according to §§ 264.340(b) and 266.100(b) of this chapter:

(i) Retain relevant permit conditions. Under this option, the Director will:

(A) Retain permit conditions that address releases during startup, shutdown, and malfunction events, including releases from emergency safety vents, as these events are defined in the facility's startup, shutdown, and malfunction plan required under § 63.1206(c)(2) of this chapter; and

(B) Limit applicability of those permit conditions only to when the facility is operating under its startup, shutdown, and malfunction plan.

(ii) Revise relevant permit conditions.

(A) Under this option, the Director will:

(1) Identify a subset of relevant existing permit requirements, or develop alternative permit requirements, that ensure emissions of toxic compounds are minimized from startup, shutdown, and malfunction events, including releases from emergency safety vents, based on review of information including the source's startup, shutdown, and malfunction plan, design, and operating history.

(2) Retain or add these permit requirements to the permit to apply only when the facility is operating under its startup, shutdown, and malfunction plan.

(B) Changes that may significantly increase emissions.

(1) You must notify the Director in writing of changes to the startup, shutdown, and malfunction plan or changes to the design of the source that may significantly increase emissions of toxic compounds from startup, shutdown, or malfunction events, including releases from emergency safety vents. You must notify the Director of such changes within five days of making such changes. You must identify in the notification recommended revisions to permit conditions necessary as a result of the changes to ensure that emissions of toxic compounds are minimized during these events.

(2) The Director may revise permit conditions as a result of these changes to ensure that emissions of toxic compounds are minimized during startup, shutdown, or malfunction events, including releases from emergency safety vents either:

(i) Upon permit renewal, or, if warranted;

(ii) By modifying the permit under §§ 270.41(a) or 270.42.

(iii) Remove permit conditions. Under this option:

(A) The owner or operator must document that the startup, shutdown, and malfunction plan required under § 63.1206(c)(2) of this chapter has been approved by the Administrator under § 63.1206(c)(2)(ii)(B) of this chapter; and

(B) The Director will remove permit conditions that are no longer applicable according to §§ 264.340(b) and 266.100(b) of this chapter.

(2) Addressing permit conditions upon permit reissuance. The owner or operator of an incinerator, cement kiln, lightweight aggregate kiln, solid fuel boiler, liquid fuel boiler, or hydrochloric acid production furnace that has conducted a comprehensive performance test and submitted to the Administrator a Notification of Compliance documenting compliance with the standards of part 63, subpart EEE, of this chapter may request in the application to reissue the permit for

the combustion unit that the Director control emissions from startup, shutdown, and malfunction events under any of the following options:

(i) RCRA option A.

(A) Under this option, the Director will:

(1) Include, in the permit, conditions that ensure compliance with §§ 264.345(a) and 264.345(c) or §§ 266.102(e)(1) and 266.102(e)(2)(iii) of this chapter to minimize emissions of toxic compounds from startup, shutdown, and malfunction events, including releases from emergency safety vents; and

(2) Specify that these permit requirements apply only when the facility is operating under its startup, shutdown, and malfunction plan.; or

(ii) RCRA option B.

(A) Under this option, the Director will:

(1) Include, in the permit conditions, that ensure emissions of toxic compounds are minimized from startup, shutdown, and malfunction events, including releases from emergency safety vents, based on review of information including the source's startup, shutdown, and malfunction plan, design, and operating history; and

(2) Specify that these permit requirements apply only when the facility is operating under its startup, shutdown, and malfunction plan.

(B) Changes that may significantly increase emissions.

(1) You must notify the Director in writing of changes to the startup, shutdown, and malfunction plan or changes to the design of the source that may significantly increase emissions of toxic compounds from startup, shutdown, or malfunction events, including releases from emergency safety vents. You must notify the Director of such changes within five days of making such changes. You must identify in the notification recommended revisions to permit conditions necessary as a result of the changes to ensure that emissions of toxic compounds are minimized during these events.

(2) The Director may revise permit conditions as a result of these changes to ensure that emissions of toxic compounds are minimized during startup, shutdown, or malfunction events, including releases from emergency safety vents either:

(i) Upon permit renewal, or, if warranted;

(ii) By modifying the permit under §§ 270.41(a) or 270.42; or



(iii) CAA option. Under this option:

(A) The owner or operator must document that the startup, shutdown, and malfunction plan required under § 63.1206(c)(2) of this chapter has been approved by the Administrator under § 63.1206(c)(2)(ii)(B) of this chapter; and

(B) The Director will omit from the permit conditions that are not applicable under §§ 264.340(b) and 266.100(b) of this chapter.

(b) Interim status facilities

(1) Interim status operations. In compliance with §§ 265.340 and 266.100(b), the owner or operator of an incinerator, cement kiln, lightweight aggregate kiln, solid fuel boiler, liquid fuel boiler, or hydrochloric acid production furnace that is operating under the interim status standards of part 265 or 266 of this chapter may control emissions of toxic compounds during startup, shutdown, and malfunction events under either of the following options after conducting a comprehensive performance test and submitting to the Administrator a Notification of Compliance documenting compliance with the standards of part 63, subpart EEE, of this chapter.

(i) RCRA option. Under this option, the owner or operator continues to comply with the interim status emission standards and operating requirements of part 265 or 266 of this chapter relevant to control of emissions from startup, shutdown, and malfunction events. Those standards and requirements apply only during startup, shutdown, and malfunction events; or

(ii) CAA option. Under this option, the owner or operator is exempt from the interim status standards of part 265 or 266 of this chapter relevant to control of emissions of toxic compounds during startup, shutdown, and malfunction events upon submission of written notification and documentation to the Director that the startup, shutdown, and malfunction plan required under § 63.1206(c)(2) of this chapter has been approved by the Administrator under § 63.1206(c)(2)(ii)(B) of this chapter.

(2) Operations under a subsequent RCRA permit. When an owner or operator of an incinerator, cement kiln, lightweight aggregate kiln, solid fuel boiler, liquid fuel boiler, or hydrochloric acid production furnace that is operating under the interim status standards of parts 265 or 266 of this chapter submits a RCRA permit application, the owner or operator may request that the Director control emissions from startup, shutdown, and malfunction events under any of the options provided by paragraphs (a)(2)(i), (a)(2)(ii), or (a)(2)(iii) of this section.

(c) New units. Hazardous waste incinerator, cement kiln, lightweight aggregate kiln, solid fuel boiler, liquid fuel boiler, or hydrochloric acid production furnace units that become subject to RCRA permit

requirements after October 12, 2005 must control emissions of toxic compounds during startup, shutdown, and malfunction events under either of the following options:

(1) Comply with the requirements specified in § 63.1206(c)(2) of this chapter; or

(2) Request to include in the RCRA permit, conditions that ensure emissions of toxic compounds are minimized from startup, shutdown, and malfunction events, including releases from emergency safety vents, based on review of information including the source's startup, shutdown, and malfunction plan and design. The director will specify that these permit conditions apply only when the facility is operating under its startup, shutdown, and malfunction plan.

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